Appendix A. Test Tool Descriptions

The following matrix gives a listing and description of available test tools.

TOOL TYPE	SELECTED TOOL	TOOL DESCRIPTION
Configuration Management Tool	ClearCase	ClearCase was developed by Atria Software, Inc. It uses VOBs (Version Object Base) to store the software versions. A VOB is a virtual directory tree of sources and other objects that is mounted like a disk partition. A project may have many VOBs. Any changes made by the developer after the software has been frozen will be conducted on a branch. The test organizations are responsible for merging the fixes (branches).
Non conformance Reporting Tool	DDTS	Distributed Defect Tracking System (DDTS) was developed by QualTrak Corporation. DDTS is a UNIX change management and bug tracking system that tracks and manages changes throughout the life cycle of a hardware or software product from initial requirements planning to obsolescence in the field. DDTS was specifically designed to aid developers during product development and the quality assurance organization during the testing phase. This tool works hand in hand with ClearCase.
Capture and Playback Tool	XRunner	XRunner was developed by Mercury Interactive Corporation. XRunner is an advanced automated software testing system for X window applications. XRunner automates the full range of software testing needs. Some of the gained functionality includes: output synchronization, text recognition, and a high-level testing mode that operates directly on GUI objects.
Automated Client/Server Testing System	LoadRunner	LoadRunner was developed by Mercury Interactive Corporation. It is an automated testing system for client/ server applications on UNIX/X platforms. By running multiple users in parallel off the server, LoadRunner enables the automation of load testing, performance testing, and system tuning.
Requirements Traceability Tool	RTM	The Requirements & Traceability Management (RTM) tool was developed by GEC-Marconi Limited. It is configurable to support our methodology. RTM provides an audit trail that will enable us to trace various requirements. The tool is driven by requirements and provides an easy avenue for the production of requirements related documents or matrices.

TOOL TYPE	SELECTED TOOL	TOOL DESCRIPTION
Network Management Framework	OpenView	OpenView was developed by Hewlett Packard. It has a Network Management Framework. The Framework can be used to monitor any device that supports the Simple Network Management Protocol (SNMP). This tool will aid us in determining the status of the network and the devices on the network.
Network Analyzer/ Monitor	Network General Sniffer Network Analyzer Model 57	The Sniffer Network Analyzer was developed by Network General. This tool will assist us with performance testing, as it can monitor and generate traffic on Ethernet and FDDI networks.
Network Performance Tool	Netperf	Netperf is a benchmark tool which will be used to measure various aspects of network performance, primarily focusing on bulk data transfer and request/response performance using either the TCP or UDP and the Berkeley Sockets interface.
Source Simulator	TRMM/TSDIS I/F Simulator	The TRMM I/F Simulator, currently under development, will be used to provide the basic protocol and interface functions which will be employed by the actual SDPF/TSDIS. This tool will enable us to perform external interface and internetworking tests.
Sink Simulator	DSS	The Sink Simulator , currently under development, will be used to provide the basic protocol and interface functions which will be employed by actual external clients. This tool will enable us to perform external interface and internetworking tests, which include authentication and data request from the client.

Appendix B. Test Data Descriptions

Data Type	Description
Accounts - UNIX	username and password to include groups and privileges
Accounts - DCE	username and password to include groups and privileges
OODCE Class Libraries	
ASCII Files	for comparison utility, e-mail, FTP and rcp (to include various shell scripts)
Binary Files	for comparison utility, e-mail, FTP and rcp
Mailing Lists	for multiple address distribution
System and Event Logs	to be generated by the system under test (HPOV and MSS)
MIB Configurations	
Various Source Files	valid and invalid algorithms for all supported compilers (C, FORTRAN77, FORTRAN90, Ada)
PGEs	to be generated by compilation of sample algorithms and toolkits
Scheduler Stimulus	variations in configuration and process control
Sample Science Data Files and Granules	for supported data products and levels in Ir1
Various tar Files	for science data and algorithms
Sample Messages for Ingest	valid and invalid: SFDUs, DANs, DAAs
Sample Messages for Data Server	valid and invalid: DRs
Sample Archived Data Files	sample instrument data at various processing levels
Ingest Stimulus	for error condition triggering

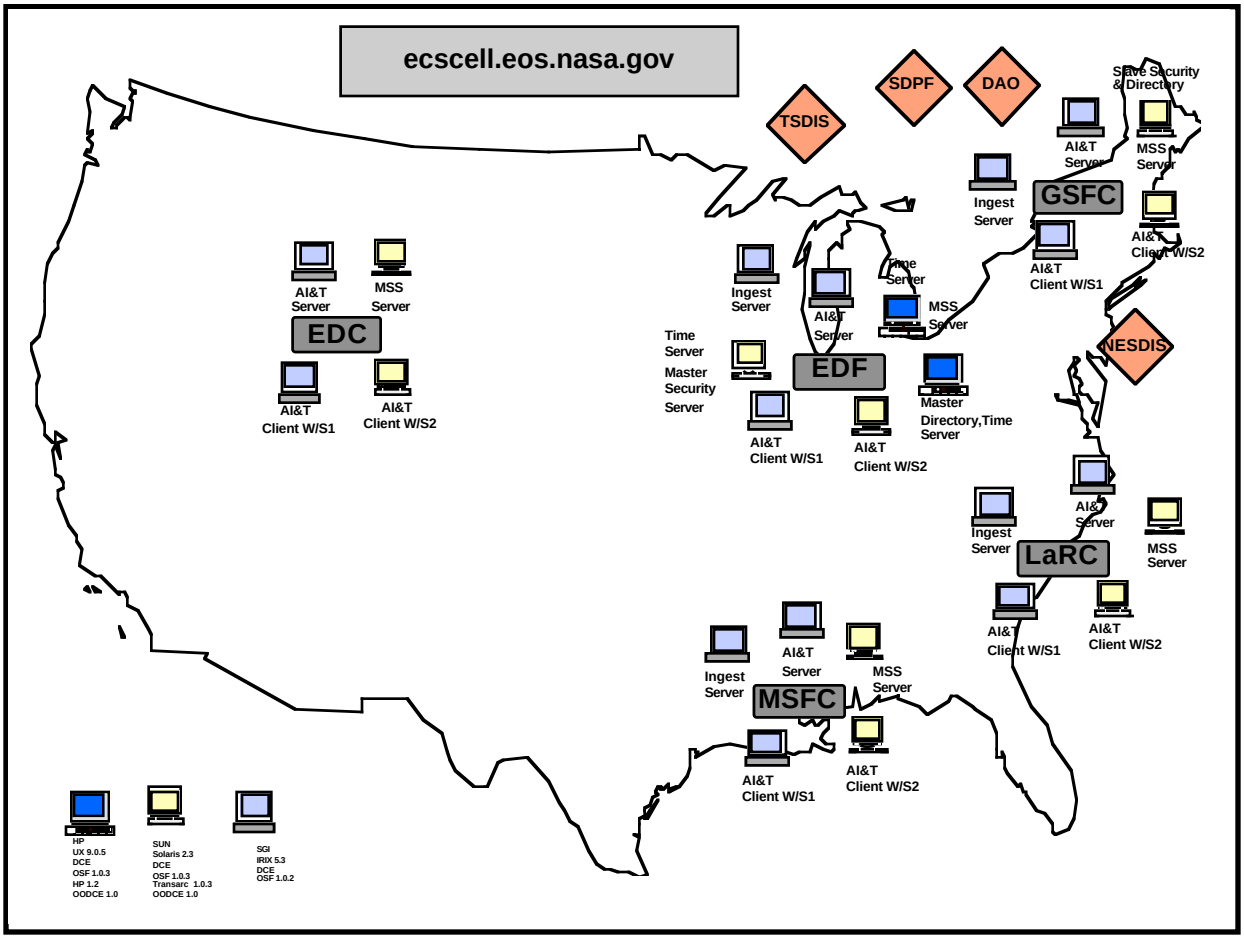

Figure B-1. Ir1 DCE Cell Topology

Note: Refer to the " Ir1 Installation Plan for the ECS Project " (Document 800-TP-001-001), dated August 1995, for site specific equipment configurations, floor plans, network diagrams, and bill of materials.

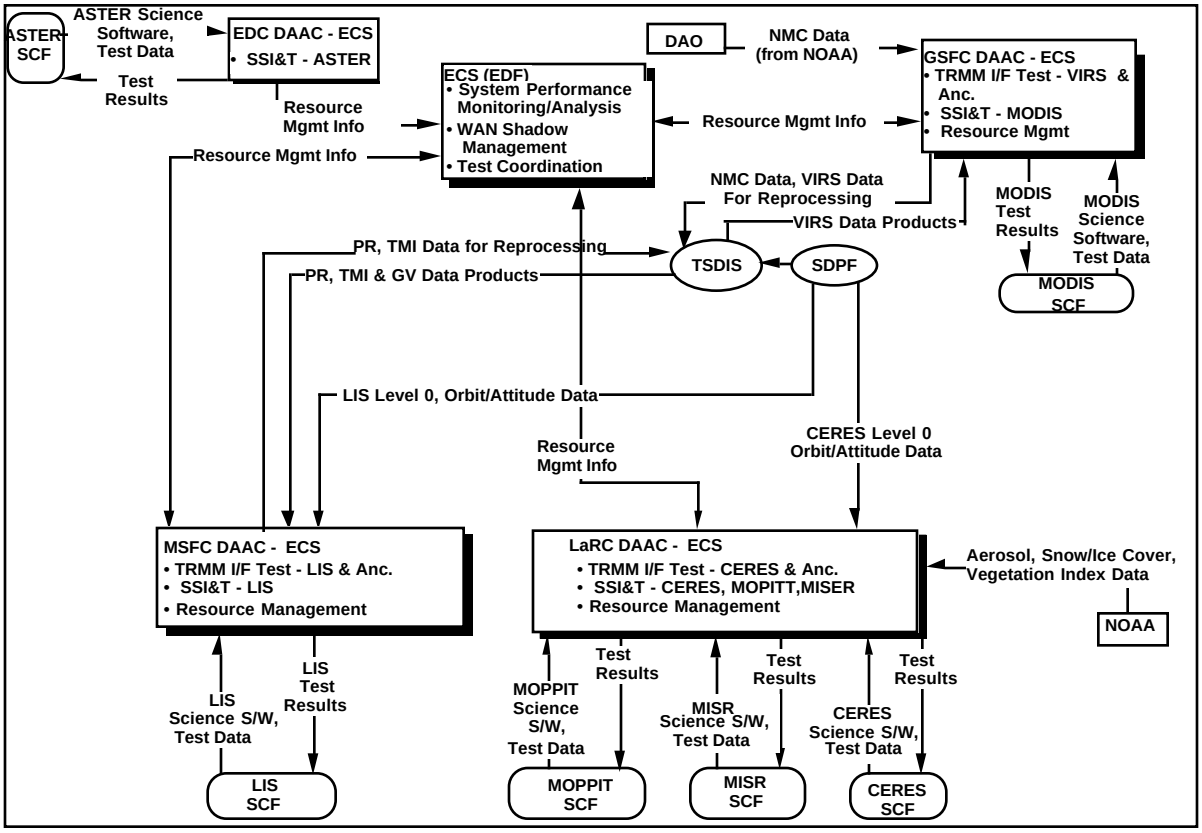

Figure B-2. Ir1 External Interfaces

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Appendix C. Verification Traceability Matrix

The following matrix provides a mapping of Level 4 requirements to test cases.

paragraph_id	verif_method	text	test_id
C-CSS-00040	inspection	The CSS services shall be compatible with POSIX-compliant UNIX platforms.	BC002.002
C-CSS-00500	test/inspection	The CSS client services software shall be made available in the form of a CSS toolkit to the developers.	TC003.001 TC009.004 TC011.001 TC011.002 TC013.003
C-CSS-21000	test	The CSS Security service shall provide an API to verify the identity of users.	BS002.001 BS002.002 TC003.005 TS004.001 TS004.002 TS004.003 TS004.004
C-CSS-21020	demo	The CSS Security service shall provide the capability to create/modify/delete user accounts and privileges in the security registry.	TC003.005
C-CSS-21030	demo	The CSS Security service shall provide the capability to define/modify/delete group information in the security registry.	TC003.005
C-CSS-21100	test	The CSS Security service shall provide an API to challenge the client/server to authenticate itself at the following three levels. a. connect level b. request level c. packet level	TC003.005
C-CSS-28000	test	CSS Event Logger Service shall provide capability to record event and history data to a application specific log file.	TC013.003
C-CSS-28010	test	CSS Event Logger Service shall accept and record event time (when the event was generated, obtained from the Time Service) information.	TC013.003
C-CSS-28020	test	CSS Event Logger Service shall accept and record the application information (name and version of the calling application).	TC013.003
C-CSS-28030	test	CSS Event Logger Service shall accept and record event message information.	TC013.003
C-CSS-28040	test	CSS Event Logger Service shall accept and record the event type information. (Type of the event: fault, performance)	TC013.003

paragraph_id	verif_method	text	test_id
C-CSS-28060	demo	CSS Event Logger Service shall inform M&O staff if the event disposition narrative by the application demands so.	TC013.003 TC013.004
C-CSS-28070	test	CSS Event Logger Service shall record the operator/principle information that is relevant for the generated event.	TC013.003
C-CSS-28080	test	CSS Event Logger Service shall record the environment information for the generated event.	TC013.003
C-CSS-60500	test	The CSS File Access Service shall provide functionality for interactive and non-interactive transfer of files (send and receive) between two host systems.	TC009.001 B01.07.01 B01.07.02 T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08
C-CSS-60510	demo	The CSS File Access Service shall be capable of transferring ASCII and binary files.	TC009.001 B01.07.01 B01.07.02 T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08
C-CSS-60520	demo	The CSS File Access Service shall support the File Transfer Protocol (FTP).	TC009.001 BS002.001 BS002.002 BS002.005 TS005.001 TS005.002 TS005.003 TS005.004 B01.07.01 B01.07.02 T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04
C-CSS-60600	demo	The CSS File Access Service shall provide connection oriented operation for file transfers.	TC009.001 B01.07.01 B01.07.02 T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08

paragraph_id	verif_method	text	test_id
C-CSS-60610	demo	The CSS File Access Service shall allow selection of the file type (ASCII or binary).	TC009.001 TC009.004 B01.07.01 B01.07.02 T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08
C-CSS-60620	demo	The CSS File Access Service shall support proxy mode of operation which enables transfer of files between two remote hosts.	TC009.001 B01.07.01 B01.07.02 T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08
C-CSS-60630	demo	The CSS File Access Service shall provide capability to list remote files	TC009.001 B01.07.01 B01.07.02 T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08
C-CSS-60640	demo	The CSS File Access Service shall support wildcards in files on the remote host.	TC009.001 B01.07.01 B01.07.02 T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08
C-CSS-60650	demo	The CSS File Access service shall support anonymous FTP which allows read access to all users.	TC009.003

paragraph_id	verif_method	text	test_id
C-CSS-61040	demo	The CSS Electronic Mail Service shall provide translation between SMTP and X.400 protocol.	TC006.001 TC006.002 TC010.001 TC010.002 TC010.003 B01.05.01 B01.05.02 T01-02.05.01 T01-02.05.02 T01-02.05.04 T01-02.05.05
C-CSS-61050	demo	The CSS Electronic Mail Service shall be accessible in interactive mode.	TC006.001 TC006.002 TC010.001 TC010.002 TC010.003 B01.05.01 B01.05.02 T01-02.05.01 T01-02.05.02 T01-02.05.04 T01-02.05.05
C-CSS-61060	test	The CSS Electronic Mail Service shall be accessible in non-interactive mode via API.	TC006.001 TC006.002 TC010.001 TC010.002 TC010.003 B01.05.01 B01.05.02 T01-02.05.01 T01-02.05.02 T01-02.05.04 T01-02.05.05
C-CSS-62000	demo	The CSS Bulletin Board Service shall be based on the following standards: a. TCP/IP b. NNTP c. SMTP d. Usenet message standard (RFC 850)	TC017.001
C-CSS-62010	demo	The CSS Bulletin Board Service shall support multiple (configurable) bulletin boards (newsgroups).	BC012.004
C-CSS-62030	demo	The CSS Bulletin Board Service shall provide concurrent access to multiple users (registered or non-registered).	BC012.004
C-CSS-62040	demo	The CSS Bulletin Board Service shall allow multiple messages for each bulletin board.	BC012.004

paragraph_id	verif_method	text	test_id
C-CSS-62100	demo	The CSS Bulletin Board Service shall provide capabilities to authorized users (M&O staff) for: a. creating new bulletin board b. deleting existing bulletin board c. deleting message(s) from a bulletin board d. backing up bulletin boards e. forcing users off a bulletin board or the entire bulletin board service for backup f. collecting access history and/or statistical information.	BC012.004
C-CSS-62120	demo	The CSS Bulletin Board Service shall provide the capability to respond to a posted message on a bulletin board by sending the response message to: a. the bulletin board (follow up) b. author of the original message (respond to author) c. named destinations (forward).	BC012.004
C-CSS-62300	demo	The CSS Bulletin Board Service shall be available to the users in interactive mode.	BC012.004
C-CSS-62305	demo	The CSS Bulletin Board Service shall allow user to subscribe to bulletin boards.	BC012.004
C-CSS-62310	demo	The CSS Bulletin Board Service shall allow user to unsubscribe bulletin boards.	BC012.004
C-CSS-62320	demo	The CSS Bulletin Board Service shall allow user to select a subscribed bulletin board for viewing summary of all messages in it.	BC012.004
C-CSS-62330	demo	The CSS Bulletin Board Service shall provide the capability to respond to a message by sending the response to the bulletin board and/or to the author of the message and/or any other operator specified destination.	BC012.004
C-CSS-62340	demo	The CSS Bulletin Board Service shall provide capability: a. to search for a string in message headers or in message text. b. to search by author c. to search by subject.	BC012.004
C-CSS-62350	demo	The CSS Bulletin Board Service shall provide a catch-up feature which excludes user specified messages from appearing in the bulletin board when it is viewed next time.	BC012.004
C-CSS-62360	demo	The CSS Bulletin Board Service shall allow the users to post messages to bulletin board(s).	BC012.004
C-CSS-62380	demo	The CSS Bulletin Board Service shall allow users to copy/save a message to their local system.	BC012.004
C-CSS-63000	demo	The CSS Virtual Terminal shall provide a virtual device which hides the physical terminal characteristics and handling conventions from both the operator and the server host.	TC003.001
C-CSS-63010	demo	The CSS Virtual Terminal shall provide means to enhance characteristics of the basic virtual device by mutual agreement between the two communicating parties (option negotiations).	TC003.001
C-CSS-63020	demo	The CSS Virtual Terminal shall be based on industry standard and accepted protocols (telnet and ktelnet).	TC003.001
C-CSS-63040	demo	The CSS Virtual Terminal shall provide guest access to non-registered users to log into the ECS guest server.	TC003.001

paragraph_id	verif_method	text	test_id
C-HRD-11115	inspection	The Enterprise Monitoring Server processor shall have the capability to support a POSIX compliant IEEE 1003.1 operating system (UNIX).	TC017.001
C-HRD-11300	inspection	The Enterprise Monitoring Server data storage shall be compatible with POSIX compliant operating systems from several vendors.	TC017.001
C-HRD-12115	inspection	The Local Management Server processor shall have the capability to support a POSIX compliant IEEE 1003.1 operating system (UNIX).	TC017.001
C-HRD-12300	inspection	The Local Management Server data storage shall be compatible with POSIX compliant operating systems from several vendors.	TC017.001
C-HRD-18000	inspection	The MSS-MHCI Enterprise Monitoring Server shall maintain one backup of all software and key data items in a separate physical location.	TC017.001
C-HRD-18005	inspection	The MSS-MHCI Local Management Server shall maintain one backup of all software and key data items in a separate physical location.	TC017.001
C-HRD-21115	inspection	The Enterprise Communications Server processor shall have the capability to support a POSIX compliant IEEE 1003.1 operating system (UNIX).	TC017.001
C-HRD-21300	inspection	The Enterprise Communications Server data storage shall be compatible with POSIX compliant operating systems from several vendors.	TC017.001
C-HRD-23115	inspection	The Bulletin Board Server processor shall have the capability to support a POSIX compliant IEEE 1003.1 operating system (UNIX).	TC017.001
C-HRD-23300	inspection	The Bulletin Board Server data storage shall be compatible with POSIX compliant operating systems from several vendors.	TC017.001
C-HRD-28000	inspection	The CSS-DCHCI Enterprise Communications Server shall maintain one backup of all software and key data items in a separate physical location.	TC017.001
C-HRD-32000	inspection	The ISS shall use physical devices and Medium Access Control protocols compatible with the following standards: a. IEEE 802.2 (Logical Link Control) b. IEEE 802.3 (MAC for Ethernet) c. IEEE 802.6 (MAC for SMDS) d. ANSI X3T9.5 (MAC for FDDI).	TC017.001
C-HRD-32010	demo/inspection	The ISS physical components, and services shall have the capability to be monitored via SNMP agents.	TC017.001
C-HRD-41000	inspection	The EDF in the IR-1 timeframe shall provide a Enterprise Monitoring Server configured with: a. Two Fixed Disks b. One Tape Drive c. One CD-ROM Drive d. Storage cross-strapped with Enterprise Communications Server	TC017.001

paragraph_id	verif_method	text	test_id
C-HRD-41005	inspection	The EDF in the IR-1 timeframe shall provide a Enterprise Communications Server configured with: a. Two Fixed Disks b. One Tape Drive c. One CD-ROM Drive d. Storage cross-strapped with Enterprise Monitoring Server	TC017.001
C-HRD-41010	inspection	The EDF in the IR-1 timeframe shall provide a Bulletin Board Server configured with: a. One Tape Drive b. One CD-ROM Drive	TC017.001
C-HRD-41015	inspection	The EDF in the IR-1 timeframe shall provide two (2) Data Storage Unit supporting RAID level 5, one for the shared Enterprise Monitoring/Enterprise Communications, and the other for the Bulletin Board Server.	TC017.001
C-HRD-41020	inspection	The EDF in the IR-1 timeframe shall provide four (4) Management Workstations, which can perform any EMC function.	TC017.001
C-HRD-41025	inspection	The EDF in the IR-1 timeframe shall provide 1 system printer.	TC017.001
C-HRD-41500	inspection	The EDF in the IR-1 timeframe infrastructure shall provide one EDF LAN.	TC017.001
C-HRD-42000	inspection	The GSFC LSM in the IR-1 timeframe shall provide a Local Management Server configured with: a. Two Fixed Disks b. One Tape Drive c. One CD-ROM Drive	TC017.001
C-HRD-44000	inspection	The MSFC LSM in the IR-1 timeframe shall provide a Local Management Server configured with: a. Two Fixed Disks b. One Tape Drive c. One CD-ROM Drive	TC017.001
C-HRD-45000	inspection	The LaRC LSM in the IR-1 timeframe shall provide a Local Management Server configured with: a. Two Fixed Disks b. One Tape Drive c. One CD-ROM Drive	TC017.001
C-HRD-46000	inspection	The EDC LSM in the IR-1 timeframe shall provide a Local Management Server configured with: a. Two Fixed Disks b. One Tape Drive c. One CD-ROM Drive	TC017.001
C-ISS-01000	demo	The ISS shall interoperate with the V0 Wide Area Network to provide IR-1 connectivity as specified in DID 220, "Communications Requirements for the ECS project".	BC002.002
C-ISS-01010	test	The ISS shall provide an interface between the V0 WAN and the MSFC, LaRC and GSFC DAACs for the purpose of IR-1 interface testing.	TC010.003

paragraph_id	verif_method	text	test_id
C-ISS-01020	demo	The ISS shall interface with NSI or an alternate Internet provider at GSFC, MSFC, LaRC and EDC to provide DAAC access to science users in accordance with the following documents: a. DID 220, "Communications Requirements for the ECS Project" 194-220-SE3-001 b. Interface Requirements Document between EOSDIS Core System (ECS) and the NASA Science Internet (NSI), 194-219-SE1-001	TS002.002 TS003.008
C-ISS-01030	test	The ISS shall provide for connectivity between the MSFC DAAC and NOLAN for the ingest of L0 LIS data.	BS002.001 TS005.001 TS005.003
C-ISS-01040	test	The ISS shall provide for connectivity between the LaRC DAAC and NOLAN for the ingest of L0 CERES data.	BS002.001 TS005.001 TS005.003
C-ISS-01080	test	The ISS shall reuse the V0 WAN in order to provide connectivity between V0 network nodes and V1 network nodes and to provide interoperability between the systems.	TC0101.001
C-ISS-01100	test	The ISS shall provide for connectivity with TSDIS in order to transfer TRMM data to the GSFC DAAC.	BS002.002 TS005.002 TS005.004
C-ISS-02000	demo	The ISS shall provide connection oriented transport services as specified by the TCP protocol referenced in RFC 793.	BC002.002
C-ISS-02010	Inspection	The ISS shall provide the capability to filter packets based on the port/socket of the transport layer protocol.	BC002.002 BC002.003
C-ISS-02020	demo/inspection	The ISS shall provide connectionless transport services as specified by the UDP protocol referenced in RFC 768.	BC002.002
C-ISS-02030	demo/inspection	The ISS shall provide network layer services as specified by the Internet Protocol (IP) suite referenced in RFC 791.	BC002.002
C-ISS-02050	demo/inspection	The ISS shall provide ICMP network layer service as specified by RFC 792.	BC002.002
C-ISS-02060	demo/inspection	The ISS shall provide network layer services in compliance with one or more of the following protocols as appropriate to the type of the physical network supported: a. IP over Ethernet as specified in RFCs 894, 895, 826 (ARP), 903 (RARP) b. IP over FDDI as specified in RFC 1188, 1390 (ARP, RARP) c. IP over HiPPI as specified in RFC 1374 (includes ARP, RARP) d. IP over SMDS as specified in RFC 1209 (includes ARP, RARP)	BC002.002
C-ISS-02520	demo/inspection	The ISS shall provide services based on the Open Shortest Path First (OSPF) protocol referenced in RFC 1583 to route traffic between the source and destination nodes, maintain route databases, and exchange routing information between networks.	BC002.002
C-ISS-02530	demo/inspection	The ISS shall provide services based on the Routing Information Protocol (RIP) referenced in RFC 1058 to route network traffic between the source and destination nodes.	BC002.002

paragraph_id	verif_method	text	test_id
C-MSS-10060	test	The MSS shall interface with the Tropical Rainfall Measuring Mission (TRMM) to exchange data identified in Table 5.1-1 as specified in ECS/TRMM IRD, 194-219-SE1-018.	
C-MSS-10080	test	The MSS shall interface with the NASA Science Internet (NSI) to exchange data identified in Table 5.1-1 as specified in ECS/NSI IRD, 194-219-SE1-001.	
C-MSS-10410	inspection	The MSS shall interface with the CSS subsystems to exchange the data items in Table 5.1-5 as specified in the ECS internal ICDs, 313-DV3-003.	TC017.001
C-MSS-12005	demo	The MSS Management User Interface (MUI) Service shall be compatible with the ECS management framework.	TC014.004
C-MSS-12010	demo	The MSS Management User Interface (MUI) Service shall provide a graphical user interface that is OSF/MOTIF compliant	TC014.004
C-MSS-12020	demo	The MSS MUI Service shall have the capability to respond to keyboard and mouse input devices	TC014.004
C-MSS-12030	demo	The MSS MUI Service shall provide a capability for the M&O Staff to add/delete a symbol and to modify a symbol's shape, color and position	TC014.004
C-MSS-12040	demo	The MSS MUI Service shall provide a capability for an application to add/delete a symbol and to modify a symbol's shape, color and position	TC014.004
C-MSS-12050	demo	The MSS MUI Service shall provide a capability for the M&O Staff to add, delete, and modify text strings	TC014.004
C-MSS-12060	demo	The MSS MUI Service shall provide a capability for an application to add, delete, and modify text strings	TC014.004
C-MSS-12070	demo	The MSS MUI Service shall have the capability to provide options and methods to the M&O Staff for screen configuration changes (color, symbol placement, etc) and for retaining the changes from session to session	TC014.004
C-MSS-12080	demo	The MSS MUI Service shall provide a capability for an applications to alert the M&O Staff	BC002.004 TC014.002
C-MSS-12090	demo	The MSS MUI Service shall provide a capability for an applications to establish a dialog session with the M&O Staff	TC014.002
C-MSS-12100	demo	The MSS MUI Service shall provide a capability for the M&O Staff to load and unload vendor or ECS defined MIB.	TC014.004
C-MSS-12110	demo	The MSS MUI Service shall provide a capability for an applications to load and unload vendor or ECS defined MIB.	TC014.004
C-MSS-12120	demo	The MSS MUI Service shall provide a capability for the operator to browse MIB values.	TC014.004 TC014.006
C-MSS-12130	demo	The MSS MUI Service shall provide the capability for the M&O Staff to register and unregister managed objects.	TC014.004
C-MSS-12140	demo	The MSS MUI Service shall provide the capability for an application to register and unregister managed objects.	TC014.004
C-MSS-12180	demo	The MSS MUI Service shall provide the capability for an application to display on-line help windows	TC014.004
C-MSS-14010	demo	The MSS Maps/Collection Service shall retain the status of managed objects and their relationship to symbols that comprise a graphical representation of the physical network topology.	TC014.001
C-MSS-14020	demo	The MSS Map/Collection Service shall provide a capability to define maps and objects.	TC014.001

paragraph_id	verif_method	text	test_id
C-MSS-14030	demo	The MSS Map/Collection Service shall provide a capability to define a hierarchical relationship between maps and sub-maps (i.e., a graphical hierarchical tree)	TC014.001
C-MSS-14040	demo	The MSS Map/Collection Service shall propagate events associated with objects up the hierarchical tree	TC014.001
C-MSS-16005	demo/inspection	The ECS management protocol shall be the SNMP standard as specified in RFC 1157.	TC014.001
C-MSS-16020	demo	The MSS Monitor/Control Service shall communicate via ECS management protocol with the MSS Management Agent Service to request management data on a managed object.	TC014.001 TC014.002
C-MSS-16030	demo	The MSS Monitor/Control Service shall be able to communicate via ECS management protocol with the MSS Management Agent Service to send ECS management set messages to configure and control the processing performed by the ECS management agent.	TC014.006
C-MSS-16040	demo	The MSS Monitor/Control Service shall communicate via ECS management protocol with the MSS Management Agent Service to receive ECS management traps/events.	BC002.004 TC014.006
C-MSS-16050	demo	The MSS Monitor/Control Service shall allow customized M&O staff-event notifications and automatic actions.	TC014.002
C-MSS-16060	demo	The MSS Monitor/Control Service shall allow the capability to set thresholds on managed resources that are monitored	TC013.005
C-MSS-16070	demo	The MSS Monitor/Control Service shall automatically report when a threshold has been exceeded by generating a ECS management event	BC002.004 TC013.005
C-MSS-16100	demo	The MSS Monitor/Control Service shall perform the following protocol test on managed network nodes: a. IP test b. TCP test c. SNMP test d. UDP test e. ICMP test	TC014.002
C-MSS-20010	demo	The MSS Discovery Service shall discover (via network protocol) new instances of managed objects.	TC014.002
C-MSS-20020	demo	The MSS Discovery Service shall detect missing occurrences of managed objects.	TC014.002
C-MSS-20030	demo	The MSS Discovery Service shall report missing occurrences of managed objects.	TC014.002
C-MSS-20040	demo	The MSS Discovery Service shall update the object database after the Discovery Service receives a request to register/unregister a managed object.	TC014.001 TC014.005
C-MSS-36010	demo	The MSS Management Agent Service shall retrieve data from ECS managed objects in test or operational mode.	TC014.001 TC014.002 TC014.006
C-MSS-36020	demo	The MSS Management Agent Service shall communicate via ECS management protocol with the MSS Monitor/Control Service to respond to requests for managed object MIB attributes	TC014.006
C-MSS-36040	demo	The MSS Management Agent Service shall communicate via ECS management protocol with the MSS Monitor/Control Service to send ECS management traps/events to the Monitor/Control Service.	TC014.006

paragraph_id	verif_method	text	test_id
C-MSS-36050	demo	The MSS Management Agent Service shall communicate via ECS management protocol with the MSS Monitor/Control Service to receive ECS management set message from the Monitor/Control Service.	TC014.006
C-MSS-36060	demo	The MSS Management Agent Service shall provide an ECS management agent that is configurable to include: a. Community to respond to and set attributes b. Agent location & contact person c. Traps to send d. Events to log & log file name	TC014.006
C-MSS-36070	demo	The MSS Management Agent Service shall provide an ECS management agent for network devices	TC014.006
C-MSS-40400	demo	The MSS configuration management application service at the sites and the SMC shall maintain software libraries to store files containing versions and platform variants of: a. source code; b. binaries and executables; c. patches; d. calibration coefficients and control data; e. scripts; f. designs and design specifications; g. databases; h. technical documentation (both text and graphics); i. test data; j. test reports; k. interface specifications; l. configuration data. (IR-1)	T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05 T03-01.05.06 T03-01.06.01
C-MSS-40410	demo	The MSS configuration management application service at each DAAC shall maintain user-definable software configuration status information for each algorithm. (IR-1)	T03-01.05.01 T0301.05.02 T0301.05.03 T01-01.05.04 T03-01.05.05
C-MSS-40420	demo	The MSS configuration management application service at each site shall maintain M&O staff-definable software configuration status information for each version of every software library file.	T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05
C-MSS-40470	demo	The MSS configuration management application service shall regulate operations on software library files through use of individual and group permissions.	T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05 T03-01.05.06 T03-01.06.01
C-MSS-40480	demo	The MSS configuration management application service shall use a checkout/edit/checkin paradigm to govern changing of software library files.	T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05 T03-01.05.06 T03-01.06.01

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C-MSS-40490	demo	The MSS configuration management application service shall track each software library file that has been changed as a new version of the original file.	T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05 T03-01.05.06
C-MSS-40500	demo	The MSS configuration management application service shall merge versions of software library files and identify version conflicts, if any.	T03-01.05.05
C-MSS-40510	demo	The MSS configuration management application service shall maintain records of actual changes made to ECS software library files in implementing system enhancement requests.	T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05
C-MSS-40540	demo	The MSS configuration management application service shall perform builds of baseline systems for ECS platforms and audit the builds such that they can be repeated.	T03-01.01.01 T03-01.02.01 T03-01.04.02
C-MSS-40550	demo	The MSS configuration management application service shall reconstruct previous versions of software library files.	T03-01.05.05
C-MS S-40560	demo	The MSS configuration management application service shall allow concurrent user access to software library files.	T03-01.05.03 T03-01.05.05
C-MSS-40570	demo	The MSS configuration management application service shall maintain an audit trail of all changes made to software library files.	T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05
C-MSS-40990	demo	The MSS configuration management application service shall log the following information for configuration management events: a. operation type; b. userid of initiator; c. date-time stamp; d. host name. (IR-1, at the sites only)	T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05
C-MSS-40995	demo	The MSS configuration management application service shall generate chronological reports of logged CM events associated with M&O staff-selectable: a. time frames; b. operation types; c. userids; d. hosts.	T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05

paragraph_id	verif_method	text	test_id
C-MSS-60010	demo	The MSS Fault Management Application Service shall provide the capability to create and display graphical representations of a given network topology consisting of the following: a. routers b. communication lines c. hosts d. peripherals e. applications	TC014.001
C-MSS-60020	demo	The MSS Fault Management Application Service shall provide the capability to define categories of faults.	TC014.002
C-MSS-60080	demo	The MSS Fault Management Application Service shall have the capability to establish, view, modify and delete thresholds on performance metrics it measures.	TC013.005
C-MSS-60100	demo	The MSS Fault Management Application Service shall have the capability to poll for the detection of fault/performance information.	TC014.002
C-MSS-60110	demo	The MSS Fault Management Application Service shall be capable of receiving fault notifications.	BC002.004
C-MSS-60120	demo	The MSS Fault Management Application Service shall have the capability to define the frequency with which polling is done for the detection of fault/performance information.	TC014.002
C-MSS-60130	demo	The MSS Fault Management Application Service shall provide the capability to detect the following types of faults, errors and events: a. communications software version mismatch errors b. communication software configuration errors c. the following errors in communication hardware: 1. host not reachable 2. router not reachable 3. errors and failures of communication links d. Errors in the communications protocols supported e. degradation of performance due to established thresholds being exceeded f. Peripherals g. Databases h. Applications: 1. process missing (Application or COTS product) 2. process in a loop 3. process failed	BC002.004
C-MSS-60140	demo	The MSS Site Fault Management Application Service shall have the capability to generate a fault notification when a predefined threshold on a performance metric is exceeded.	BC002.004
C-MSS-60150	demo	The MSS Fault Management Application Service shall have the capability to receive fault notifications from the Management Agent Service.	BC002.004
C-MSS-60170	demo	The MSS EMC Fault Management Application Service shall be capable of requesting fault notification and performance degradation data from : a. Site Fault Management Applications b. Other external systems as defined in Section 5.1.	BC002.004
C-MSS-60190	test	The MSS Fault Management Application Service shall use the Logging Services to record each detected fault.	TC013.003 TC013.004 TC014.002

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C-MSS-60200	demo	The MSS Fault Management Application Service shall have the capability to generate the following types of notifications for detected faults : a. a change in the color of an icon on a display b. a message in a pop-up notification window c. logging the following fault information to a disk log file: 1. fault type 2. date and time of occurrence of the fault 3. identification of the source of the notification (e.g. IP address, process name, etc.) 4. fault data received with the notification 5. operator-defined descriptive text d. audible alert	BC002.004
C-MSS-60310	demo	The MSS Fault Management Application Service shall provide utilities to perform diagnostics and testing of the following for the purpose of fault isolation: a. connectivity between pairs of ECS hosts and ECS routers b. ability to reach hosts and routers c. availability of network services at hosts	BC002.004
C-MSS-60340	demo	The MSS Fault Management Application Service shall be capable of verifying the operational status of a host.	BC002.004
C-MSS-60370	demo	The MSS Fault Management Application Service at the SMC shall be capable of sending gathered isolation, location, identification and characterization of reported faults data to the level of subsystem and equipment to the following: a. the site Fault Management Applications b. other external systems as defined in Section 5.1.	TC014.002
C-MSS-60380	demo	The MSS Fault Management Application Service at the sites shall isolate, locate, and identify faults, identify subsystem, equipment and software faults, and identify the nature of the faults detected within its site.	TC014.002
C-MSS-60500	demo	The MSS EMC Fault Management Application Service shall coordinate the recovery from conditions of performance degradation and faults with the sites and external network service providers.	TC014.002
C-MSS-60600	demo	The MSS Fault Management Application Service shall have the capability to generate, on an interactive and on a scheduled basis, reports on performance/error data that it has been configured to collect.	TC014.001 TC014.005
C-MSS-60620	demo	The MSS Fault Management Application Service shall have the capability to redirect reports to: a. console b. disk file c. printer	TC014.001

paragraph_id	verif_method	text	test_id
C-MSS-66000	demo	The MSS performance management application service shall be capable of monitoring the performance of the following ECS components a. network components 1. routers 2. links 3. bridges 4. gateways	TC014.001 T04-01.01.09
C-MSS-66010	demo/inspection	The MSS performance management application service shall be capable of monitoring ECS component protocol stack performance parameters defined in IETF RFC 1213.	TC014.001
C-MSS-66020	demo/inspection	The MSS Performance Management Application Service shall be capable of monitoring ethernet-like device performance parameters as specified in IETF RFC 1623.	TC014.001
C-MSS-66030	demo	The MSS performance management application service shall be capable of receiving managed object definitions for each managed object.	TC014.005
C-MSS-66040	demo	The MSS performance management application service shall be capable of specifying which available performance metrics are to be gathered from each individual managed object.	TC014.005
C-MSS-66050	demo	The MSS performance management application service shall be capable of requesting performance data from each individual managed object: a. at configurable intervals b. on demand.	TC014.005
C-MSS-66060	demo	The MSS performance management application service shall be capable of receiving requested performance data from ECS components.	TC014.005
C-MSS-66080	demo	The MSS performance management application service shall be capable of retrieving the following data for all network component interfaces: a. operational status b. type c. speed d. octets in/out e. packets in/out f. discards in/out g. errors in/out	TC014.005
C-MSS-66100	demo	The MSS performance management application service shall be capable of retrieving the following data for all hosts: a. total CPU utilization b. memory utilization c. physical disk i/o's d. disk storage size e. disk storage used f. number of active processes g. length of run queue h. network i/o's (packets) i. network errors	TC014.005

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C-MSS-66120	demo	The MSS performance management application service shall be capable of determining the operational state of all network components, hosts, and peripherals to be: a. on-line b. off-line c. in test mode	TC014.001 TC014.002
C-MSS-66130	demo	The MSS performance management application service shall be capable of receiving operational state change notifications from network components, hosts, applications, and peripherals.	TC014.001
C-MSS-66170	demo	The MSS performance management application service shall log ECS performance data pertaining to ECS network components and operating system resources.	TC013.005 TC014.001 TC014.002 TC014.005
C-MSS-66180	demo	The MSS performance management application service shall have the capability to generate the following types of statistics for a configurable period of time for performance data stored in the Management Database: a. average b. median c. maximum d. minimum e. ratios f. rates g. standard deviations.	TC013.003
C-MSS-66190	demo	The MSS performance management application service shall provide a configurable number of thresholds for each performance metric.	TC013.005
C-MSS-66200	demo	The MSS EMC performance management application service shall be capable of creating a list of suggested initial threshold values for each performance metric.	TC013.005
C-MSS-66230	demo	The MSS performance management application service shall allow each performance metric threshold to be configurable.	TC013.005
C-MSS-66240	demo	The MSS performance management application service shall be capable of evaluating each performance metric against defined thresholds.	TC013.005
C-MSS-66250	test	The MSS performance management application service shall record an event in the local History Log whenever a threshold is crossed.	TC013.003
C-MSS-66260	demo	The MSS performance management application service shall provide queries that generate performance statistics from performance data stored in the Management Database.	TC013.003
C-MSS-66270	demo	The MSS performance management application service shall store generated performance statistics.	TC013.003

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C-MSS-66310	test	The MSS performance management application service shall be capable of retrieving the following science algorithm performance data via the Management Data Access Service: a. algorithm name b. algorithm version c. start time d. stop time e. CPU utilization f. memory utilization g. disk reads h. disk writes	TC013.003 TC013.005
C-MSS-68000	demo	The MSS performance management application service shall be capable of graphically displaying the operational state of managed objects through the MUI service.	TC014.004
C-MSS-68010	demo	The MSS performance management application service shall be capable of displaying M&O staff-selected performance statistics through the MUI in tabular and graphical formats.	TC014.004
C-MSS-68020	demo	The MSS performance management application service shall be capable of printing M&O staff-selected performance statistics.	TC014.004
C-MSS-68100	demo	The MSS Performance Management Application Service shall have the capability to redirect reports to: a. console b. disk file c. printer	TC014.001 TC014.005
C-MSS-70010	demo	The MSS Security Management Application Service shall provide the capability to create, modify and delete user accounts with the following attributes: a. username b. password c. group identification code d. user identification code e. login directory f. command line interpreter	TC003.005
C-MSS-70020	demo	The MSS Security Management Application Service shall enable the assignment of user accounts to groups based on the group identification code.	TC003.005
C-MSS-70100	demo	The MSS site Security Management Application Service shall provide the capability to set, maintain, and update access control information for ECS resources.	TC003.005
C-MSS-70120	demo	The MSS site Security Management Application service shall provide the mechanism, for each ECS host, to allow or deny incoming requests from specific hosts to services.	TC003.002 TC003.003 TC003.004 TC003.005 TC003.006
C-MSS-70130	demo	The MSS site Security Management Application Service shall provide a command line interface and a GUI for the management of the following security databases: a. Authentication Database b. Authorization Database c. Network Database	TC003.001 TC003.005

paragraph_id	verif_method	text	test_id
C-MSS-70300	de mo	The MSS site Security Management Application Service shall have the capability to perform the following types of security tests: a. password auditing b. file system integrity checking c. auditing of user privileges d. auditing of resource access control information	TC003.001 TC003.003 TC003.004 TC003.005
C-MSS-70520	Inspection	The MSS EMC Security Management Application Service shall provide office automation support tools to enable the generation of directives and instructions for recovery from detected security events.	TC017.001
C-MSS-70700	test	The MSS Security Management Application Service shall have the capability to generate intrusion reports on the following: a. Login failures b. Unauthorized access to ECS resources c. Break-ins d. Viruses and worms	TC003.005
C-MSS-70710	demo	The MSS Security Management Application Service shall have the capability to generate reports from collected management data.	TC014.002
C-MSS-70720	demo	The MSS Security Management Application Service shall have the capability to redirect reports to: a. console b. disk file c. printer	TC014.002
C-MSS-90150	demo	The DBMS shall support access structures (i.e., single-level indexes, multilevel indexes) to improve the efficiency of retrieval of management data.	TC013.003
C-MSS-90570	demo	The Report Generator shall have the capability to generate charts and graphs (e.g., bar, pie, line, etc.) from management data maintained in the DBMS.	TC013.003
C-MSS-91020	demo	The MSS Office Automation shall provide a spreadsheet capability that: a. simulates and displays an accountant's worksheet b. enables revisions and calculations on the displayed worksheet's data c. enables transfer of the worksheet data to database, word processing and graphics applications d. enables printing of worksheet information.	TS002.002 TS002.012 B03.13.01
S-DPS-40010	test/demo	The AITTL CI shall have the capability to receive a Science Software Delivery from the SCF electronically via the network.	BS001.001
S-DPS-40100	test/demo	The AITTL CI shall provide the operations staff with the capability to display Science Software documentation stored in any of the following formats: a. PostScript b. ASCII c. Hypertext Markup Language (HTML) d. Microsoft Word e. WordPerfect f. Adobe Acrobat Portable Document Format (PDF).	TS002.002

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S-DPS-40110	test/demo	The AITTL CI shall provide the operations staff with the capability to print Science Software documentation stored in any of the following formats: a. PostScript b. ASCII c. Hypertext Markup Language (HTML) d. Microsoft Word e. WordPerfect f. Adobe Acrobat Portable Document Format (PDF).	TS002.002
S-DPS-40200	test/demo	The AITTL CI shall have the capability to verify that Science Software source code written in C complies with the ANSI standard specification for C.	TS002.005 T03-01.07.02 T03-01.07.01
S-DPS-40210	test/demo	The AITTL CI shall have the capability to verify that Science Software source code written in FORTRAN77 complies with the ANSI standard specification for FORTRAN77.	TS002.003 T03-01.07.02 T03-01.07.01
S-DPS-40230	test/demo	The AITTL CI shall have the capability to verify that Science Software source code written in FORTRAN 90 complies with the ANSI standard specification for FORTRAN 90.	TS002.004
S-DPS-40250	test/demo	The AITTL CI shall have the capability to verify that Science Software source code written in Ada complies with the military specification MIL-STD-1815-A.	TS002.006
S-DPS-40260	test/demo	The AITTL CI shall have the capability to verify that Science Software source code is POSIX-compliant.	TS002.005
S-DPS-40280	test/demo	The AITTL CI shall have the capability to verify that Science Software source code and Science Software scripts follow the following SDP Toolkit usage requirements (from 333-CD-002-002, SDP Toolkit Users Guide for the ECS Project. March 1995): **(a) Source code does not make any prohibited** POSIX function calls. (b) The Files have the correct format.	TS002.007 T03-01.07.05 T03-01.07.06
S-DPS-40295	test/demo	The AITTL CI shall provide 'lint-like' standards checking capabilities, including, but not limited to: Flagging argument list mismatches (type and number of arguments).	TS002.005 T03-01.07.05 T03-01.07.06
S-DPS-40320	test/demo	The AITTL CI shall have the capibility to verify that Science Software source code includes headers as specified in 423-16-01, Data Production Software and Science Computing Facility (SCF) Standards and Guidelines.	TS002.003 TS002.005 TS002.006
S-DPS-40340	test/demo	The AITTL CI shall have the capability to generate report files describing the results of standards checking.	TS002.003 TS002.004
S-DPS-40400	test/demo	The AITTL CI shall have the capability to determine if the Science Software contains memory leaks.	B03.04.01 B03.05.01
S-DPS-40405	test/demo	The AITTL CI shall have the capability to determine if the Science Software contains out of bounds indexing.	B03.04.01 B03.05.01

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S-DPS-40430	test/demo	The AITTL CI shall have the capability to generate report files describing the results of code analysis.	B03.04.01 B03.05.01
S-DPS-40910	test/demo	The AITTL CI shall have the capability to find all differences between two non_ASCII data files which are greater than a tolerance specified in metadata.	TS002.010
S-DPS-40920	test/demo	The AITTL CI shall have the capability to generate report files describing the results of file comparisons.	TS002.010
S-DPS-40930	test/demo	The file comparison capability of the AITTL CI shall include the capability to read ASCII, or HDF files.	TS002.010
S-DPS-40940	test/demo	The file comparison capability of the AITTL CI shall include the capability to allow the operations staff to specify a custom data format for binary files	TS002.010
S-DPS-41000	test/demo	The AITTL CI shall have the capability to measure the CPU time of a PGE	TS002.016
S-DPS-41005	test/demo	The AITTL CI shall have the capability to measure the wall clock time of a PGE.	TS002.016
S-DPS-41010	test/demo	The AITTL CI shall have the capability to measure the CPU time of each procedure within a process.	TS002.016
S-DPS-41015	test/demo	The AITTL CI shall have the capability to measure the wall clock time of each procedure within a process.	TS002.016
S-DPS-41020	test/demo	The AITTL CI shall have the capability to measure the memory usage of a PGE.	TS002.016
S-DPS-41030	test/demo	The AITTL CI shall have the capability to measure the disk space usage of a PGE.	TS002.016
S-DPS-41035	test/demo	The AITTL CI shall have the capability to count the number of page faults for a PGE.	TS002.016
S-DPS-41040	test/demo	The AITTL CI shall have the capability to count the number of I/O accesses made by a PGE to each of its input and output data files.	TS002.016
S-DPS-41050	test/demo	The AITTL CI shall have the capability to generate report files discussing the results of profiling activities.	TS002.016
S-DPS-41400	test/demo	The DAAC I&T environment shall include access to a configuration management tool supplied by MSS.	TS002.011 BC016.003
S-DPS-41410	test/demo	The DAAC I&T environment shall include access to a problem tracking tool supplied by MSS.	TS002.011 BC016.003
S-DPS-41500	test/demo	The AITTL CI shall provide the capability for operations staff to write reports. This capability will include: (a) word processing, (b) spreadsheet, (c) plotting, (d) drawing.	TS002.012
S-DPS-41510	test	The AITTL CI shall provide templates for reports to be written by the operations staff. (NOTE: It is assumed that these templates will be developed by the Science Office.)	TS002.012
S-DPS-41520	test/demo	The AITTL CI shall provide the capability for operations staff to keep a running log of integration and test activities on-line.	TS002.012
S-DPS-41530	test/demo	The AITTL CI shall provide the capability for authorized users to examine the integration and test logs and other reports.	TS002.012
S-DPS-41895	test/demo	The AITTL CI shall provide to the operations staff the capability to retrieve a specified data file from local DAAC storage.	BS001.001
S-DPS-42000	test	The AITTL CI shall provide the operations staff with the capability to view the metadata associated with a data file.	TS002.015

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S-DPS-42005	test	The AITTL CI shall provide the operations staff with the capability to edit the metadata associated with a data file.	TS002.015
S-DPS-42010	test	The AITTL CI shall provide the operations staff with the capability to write the metadata associated with a data file to a report file.	TS002.015
S-DPS-42100	inspection	The AITTL CI shall provide the operations staff the capability to place a Science Software Delivery Package in a non-public directory accessible to the hardware scheduled to be used for I&T.	BS001.001
S-DPS-42110	inspection	The AITTL CI shall provide the operations staff the capability to read and/or review all documentation included in the Delivery Package.	BS001.002
S-DPS-42120	test/demo	The AITTL CI shall provide the operations staff the capability to perform automated checking of all source code included in the Delivery Package against established coding standards.	BS001.002
S-DPS-42130	test/demo	The AITTL CI shall provide the operations staff the capability to perform automated checking of all scripts included in the Delivery Package against established coding standards .	BS001.002
S-DPS-42140	test/demo	The AITTL CI shall provide the operations staff the capability to perform static analyses of source code for (at a minimum) argument mismatches and variables set before used.	BS001.002
S-DPS-42150	inspection	The AITTL CI shall provide the operations staff the capability to examine all test data and expected test results files included in the Delivery Package to verify completeness and correct format.	BS001.002
S-DPS-42160	inspection	The AITTL CI shall provide the operations staff the capability to examine all coefficient files included in the Delivery Package to verify completeness and correct format.	BS001.002
S-DPS-42170	test/demo	The AITTL CI shall provide the operations staff the capability to compile all FORTRAN77, FORTRAN 90 and C source code included in the Delivery Package.	BS001.002
S-DPS-42175	test/demo	The AITTL CI shall provide the operations staff the capability to compile all Ada source code included in the Delivery Package for CERES.	BS001.002
S-DPS-42180	test/demo	The AITTL CI shall provide the operations staff the capability to check source code, coefficient files, test plans, test data, expected test results and other documentation into the Configuration Management tool.	BS001.002
S-DPS-42190	test/demo	The AITTL CI shall provide the operations staff (and others who are specifically authorized) the capability to check out source code, coefficient files, test plans, test data, expected test results and other documentation from the Configuration Management tool.	BS001.002
S-DPS-42200	test/demo	Whenever a Science Software Delivery is received by the AITTL from the SCF via the network, the operations staff shall insure that the SCF is notified that the delivery has been received successfully.	BS001.001
S-DPS-42300	test/demo	The AITTL CI shall provide the operations staff the capability to link FORTRAN77, FORTRAN 90, C++, and C object code with the SCF version of the SDP Toolkit.	BS001.003

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S-DPS-42305	test/demo	The AITTL CI shall provide the operations staff the capability to link Ada object code for CERES with the SCF version of the SDP Toolkit.	BS001.003
S-DPS-42310	test/demo	The AITTL CI shall provide the operations staff the capability to link FORTRAN77, FORTRAN 90, C++, and C object code with the DAAC version of the SDP Toolkit.	BS001.003
S-DPS-42315	test/demo	The AITTL CI shall provide the operations staff the capability to link Ada object code for CERES with the DAAC version of the SDP Toolkit.	BS001.003
S-DPS-42320	test/demo	The AITTL CI shall provide the operations staff the capability to link FORTRAN77, FORTRAN 90, C++, and C object code with other libraries.	BS001.003
S-DPS-42325	test/demo	The AITTL CI shall provide the operations staff the capability to link Ada object code for CERES with other libraries.	BS001.003
S-DPS-42340	test/demo	The operations staff shall have the capability to perform dynamic analyses of source code for (at a minimum) memory leaks and distribution of resource demands.	
S-DPS-42350	test/demo	The AITTL CI shall provide the operations staff the capability to execute perl, C shell or Bourne shell scripts.	BS001.003
S-DPS-42360	test/demo	The operations staff shall have the capability of determining the computing resources utilized by an execution of a PGE; viz., PGE CPU time, system CPU time, elapsed time, percent elapsed time, maximum memory used, number of page faults, number of swaps, number of block input operations, and number of block output operations.	BS001.003
S-DPS-42370	test/demo	The AITTL CI shall provide the operations staff the capability to collect during I&T the performance and resource utilization information needed for entry into or update of the PGE data base.	BS001.004
S-DPS-42500	test/demo	The AITTL CI shall provide the operations staff the capability to execute the Test Plans included in the Delivery Package.	BS001.003 BS001.004
S-DPS-42510	test	The AITTL CI shall provide the operations staff the capability of displaying Data Products.	BS001.004
S-DPS-42520	test	The AITTL CI shall provide the operations staff the capability of displaying data in intermediate files used to generate a Data Product.	BS001.004
S-DPS-42530	test	The AITTL CI shall provide the operations staff the capability of displaying data in input files used to generate a Data Product.	BS001.004
S-DPS-42540	test	The AITTL CI shall provide the operations staff the capability of displaying data in coefficient files used to generate a Data Product.	BS001.004
S-DPS-42550	test	The AITTL CI shall provide the operations staff the capability of displaying the Ancillary Data used to generate a Data Product .	BS001.004
S-DPS-42560	test	The AITTL CI shall provide the operations staff the capability of viewing the Status Information files associated with the generated Data Product.	BS001.004
S-DPS-42570	test	The AITTL CI shall provide the operations staff the capability of displaying all metadata associated with the generation of a Data Product.	BS001.004

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S-DPS-42580	test/demo	The AITTL CI shall provide the operations staff the capability of comparing data in two coefficient files.	BS001.004
S-DPS-42590	test/demo	The AITTL CI shall provide the operations staff the capability of comparing two Data Product files.	BS001.004
S-DPS-42600	test/demo	The AITTL CI shall provide the operations staff the capability of comparing data in two intermediate files.	BS001.004
S-DPS-42610	test/demo	The AITTL CI shall provide the operations staff the capability to enter new PGEs into the PGE Database, along with their performance and resource utilization information.	BS001.004
S-DPS-42620	test/demo	The AITTL CI shall provide the operations staff the capability to update information the PGE Database as necessary to reflect changes in performance and resource utilization resulting from a modification to a PGE.	BS001.004
S-DPS-42640	test/demo	The AITTL CI shall provide the operations staff the capability to send the test results to the SCF for analysis.	BS001.004
S-DPS-42650	test/demo	The AITTL CI shall provide the operations staff the capability to write ad hoc test tools using the perl, C shell or Bourne shell script languages.	BS001.004
S-DPS-42660	test/demo	The AITTL CI shall provide the operations staff the capability to write ad hoc test tools using the FORTRAN77, FORTRAN 90, C++, and C programming languages.	BS001.004
S-DPS-42700	test/demo	The AITTL CI shall provide the operations staff the capability to enter and track discrepancy reports related to AI&T.	BS001.002 BS001.003 BS001.004
S-DPS-42710	demo	The AITTL CI shall provide the operations staff the capability to send to and receive email messages from Science Software Developer staff and ECS staff.	TC006.002
S-DPS-42720	inspection	The AITTL CI shall provide the operations staff the capability to engage in teleconferences with Science Software Developer staff and ECS staff.	TC017.001
S-DPS-42740	test/demo	The AITTL CI shall provide the operations staff the capability to report on the status of I&T-related discrepancy reports.	TS002.012
S-DPS-42750	test/demo	The AITTL CI shall provide the operations staff the capability of record each step performed during I&T, the results and actions initiated, if any.	TS002.012
S-DPS-42760	test/demo	The AITTL CI shall provide the operations staff the capability to report on the status of the I&T activities each PGE.	TS002.012
S-DPS-42770	test/demo	The AITTL CI shall provide the operations staff the capability of writing an Inspection Report for each Science Software Delivery.	BS001.002
S-DPS-42780	test/demo	The AITTL CI shall provide the operations staff the capability of writing an Integration Report for each Science Software Delivery.	BS001.003
S-DPS-42790	test/demo	The AITTL CI shall provide the operations staff the capability of writing an Acceptance Test Report for each Science Software Delivery.	BS001.004
S-DPS-60050	test/demo	The SPRHW CI shall contain and/or provide access to staging (working storage), I/O and processing resources necessary to perform routine processing.	TS003.004
S-DPS-60080	test	The SPRHW CI shall have provision for Initialization, Recovery, and an orderly shutdown.	TS003.005

paragraph_id	verif_method	text	test_id
S-DPS-60120	test/demo	The SPRHW CI shall have a status monitoring capability.	B03.07.01
S-DPS-60330	test/analysis	The SPRHW CI shall have the capacity to support I/O to temporary and intermediate storage or multiple passes over input Products as required by individual science software.	B03.13.03 B03.14.02
S-DPS-60610	demo	The SPRHW CI platforms shall have provision for interfacing with one or more Local Area Networks (LANs).	B03.13.02
S-DPS-60710	inspection	The electrical power requirements for SPRHW CI equipment shall be in accordance with ECS Facilities Plan (DID 302/DV2)	TC017.001
S-DPS-60740	inspection	The air conditioning requirements for the SPRHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-60750	inspection	The grounding requirements for SPRHW CI equipment shall be in accordance with ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-60760	inspection	The fire alarm requirements for SPRHW CI equipment shall be in accordance with ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-60780	inspection	The physical interface requirements between SPRHW CI equipment and the facility shall be in accordance with ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-60790	inspection	The footprint size and the physical layout of SPRHW CI equipment shall be in accordance with the and ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-60910	inspection	The SPRHW CI shall support test activities throughout the development phase.	TC017.001
S-DPS-60930	inspection	The SPRHW CI shall provide test tools as designated in the SDPS Test Tool Matrix.	TC017.001
S-DPS-60970	test/demo	The SPRHW CI shall be capable of being monitored during testing.	TS003.004
S-DPS-61110	test/analysis	The operating system for each UNIX platform in the SPRWHW CI shall conform to the POSIX.2 standard.	TS003.006
S-DPS-61120	demo/inspection	The SPRHW CI POSIX.2 compliant platform shall have the following utilities installed at a minimum: perl, emacs, gzip, tar, imake, prof, gprof, nm.	TS003.006
S-DPS-61130	inspection	The SPRHW CI POSIX.2 compliant platform shall have the following POSIX.2 user Portability Utilities installed at a minimum: man, vi.	TS003.006
S-DPS-61140	inspection	The SPRHW CI POSIX.2 compliant platform shall have the following POSIX.2 Software Development Utilities installed at a minimum: make.	TS003.006
S-DPS-61150	inspection	The SPRHW CI POSIX.2 compliant platform shall have the following POSIX.2 C-Language Development Utilities installedat a minimum: lex, yacc.	TS003.006
S-DPS-61160	inspection	The SPRHW CI POSIX.2 compliant platform shall have the following UNIX shells installed at a minimum: C shell, Bourne shell, Korn shell.	TS003.006
S-DPS-61170	inspection	The SPRHW CI POSIX.2 compliant platform shall have on-line documentation or printed documentation for each installed tool.	TS003.008
S-DPS-61171	inspection	The SPRHW CI shall have provision for a dynamic analyzer to support the capability to check Science Software source code for memory leaks.	TC017.001

paragraph_id	verif_method	text	test_id
S-DPS-61172	inspection	The SPRHW CI POSIX.2 compliant platform shall have installed one or more development environment supporting the following languages: a. C b. C++ c. FORTRAN 77 d. FORTRAN 90	TC017.001
S-DPS-61173	test/demo	Each development environment associated with the POSIX.2 compliant platform in the SPRHW CI shall have the capability to compile and link strictly conformant POSIX-compliant source code.	TS002.005
S-DPS-61174	test/demo	Each development enviroment associated with the POSIX. 2 compliant platform in the SPRHW CI shall have the capability to compile and link source code containing extensions specified in the Data Productions S/W and SCF Standards and Guidelines.	TS002.005
S-DPS-61175	inspection	Each development environment associated with the POSIX.2 compliant platform in the SPRHW CI shall have an interactive source level debugger for ECS supported languages.	TC017.001
S-DPS-61177	inspection	The SPRHW CI POSIX.2 compliant platform supporting AI&T of CERES S/W shall have installed an ADA development environment.	TC017.001
S-DPS-70010	test	The AITHW CI shall provide hardware resources to operations staff for the monitor and control of Science Software Integration and Test (AI&T) on SPRHW CI processing resources.	TC017.001
S-DPS-70030	demo	The AITHW CI shall provide hardware resources to operations staff for the monitor and control of Science Software configuration management.	TC017.001
S-DPS-70060	test/demo	The AITHW CI shall have provision for Initialization, Recovery, and an orderly shutdown.	TS003.005
S-DPS-70070	inspection	The AITHW CI shall have a status monitoring capability.	TC017.001
S-DPS-70110	inspection	The operating system for each UNIX platform in the AITHW CI shall conform to the POSIX.2 standard.	TC017.001
S-DPS-70120	inspection	The AITHW CI POSIX.2 compliant platform shall have the following utilities installed at a minimum: perl, emacs, gzip, tar, imake, prof, gprof, nm.	TC017.001
S-DPS-70130	inspection	The AITHW CI POSIX.2 compliant platform shall have the following POSIX.2 User Portability Utilities installed at a minimum: man, vi.	TC017.001
S-DPS-70140	inspection	The AITHW CI POSIX.2 compliant platform shall have the following POSIX.2 Software Development Utilities installed at a minimum: make.	TC017.001
S-DPS-70150	inspection	The AITHW CI POSIX.2 compliant platform shall have the following POSIX.2 C-Language Development Utilities installed at a minimum: lex, yacc.	TC017.001
S-DPS-70160	inspection	The AITHW CI POSIX.2 compliant platform shall have the following UNIX shells installed at a minimum: C shell, Bourne shell, Korn shell.	TC017.001
S-DPS-70180	inspection	The AITHW CI shall have provision for a dynamic analyzer to support the capability to check Science Software source code for memory leaks.	TC017.001

paragraph_id	verif_method	text	test_id
S-DPS-70183	inspection	The AITHW CI POSIX.2 compliant platform shall have on-line documentation or printed documentation for each installed tool.	TC017.001
S-DPS-70190	inspection	The AITHW CI POSIX.2 compliant platform shall have installed one or more development environment supporting the following languages: a. C b. C++ c. FORTRAN 77 d. FORTRAN 90	TC017.001
S-DPS-70220	inspection	Each development environment associated with the POSIX.2 compliant platform in the AITHW CI shall have the capability to compile and link strictly conformant POSIX-compliant source code.	TC017.001
S-DPS-70230	inpection	Each development enviroment associated with the POSIX. 2 compliant platform in the AITHW CI shall have the capability to compile and link source code containing extensions specified in the Data Production S/W and SCF Standards and Guidelines.	TC017.001
S-DPS-70240	inspection	Each development environment associated with the POSIX.2 compliant platform in the AITHW CI shall have an interactive source level debugger for ECS supported languages.	TC017.001
S-DPS-70250	inspection	Each development environment associated with the POSIX.2 compliant platform in the AITHW CI shall have a screen capture utility.	TC017.001
S-DPS-70260	inspection	The AITHW CI shall include a set of profiling tools, with the capability to measure the average and maximum of the following:	TC017.001
S-DPS-70270	test/demo	The AITHW CI profiling tools shall be accessible via an API (application program interface).	TS002.016
S-DPS-70280	test/demo	The AITHW CI profiling tools shall be accessible via a GUI (graphical user interface).	TS002.016
S-DPS-70310	inspection	The AITHW CI platforms shall have provision for interfacing with one or more Local Area Networks (LANs).	TC017.001
S-DPS-70710	inspection	The electrical power requirements for AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-70740	inspection	The air conditioning requirements for the AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-70750	inspection	The grounding requirements for AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-70760	inspection	The fire alarm requirements for AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-70780	inspection	The physical interface requirements between AITHW CI equipment and the facility shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	TC017.001
S-DPS-70790	inspection	The footprint size and the physical layout of AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	TC017.001

paragraph_id	verif_method	text	test_id
S-DSS-00010	test	The SDSRV CI shall accept Data Requests for Data that is managed within the STMGT CI.	TS006.003 TS006.004
S-DSS-00020	test	The SDSRV CI shall accept Service Requests from clients.	TS006.001 TS006.002
S-DSS-00060	test	The SDSRV CI shall acknowledge the receipt of Service Requests from local and remote clients.	TS006.001 TS006.002
S-DSS-00095	test	The SDSRV CI shall return a Reject Notification if a Service Request fails validation.	TS006.002
S-DSS-01070	test	The SDSRV CI shall respond to a Data Request with a response that shall contain a status and a pointer to the data.	TS006.003 TS006.004
S-DSS-01400	test	The SDSRV CI shall log the termination of the processing of a Service Request.	TS006.001 TS006.002
S-DSS-01405	test	The SDSRV CI shall log the termination of client session.	TS006.001 TS006.002 TS006.003 TS006.004
S-DSS-01430	test	The SDSRV CI shall log the initiation of the processing of a Service Request.	TS006.001 TS006.002
S-DSS-01760	test	The SDSRV CI shall log all reported error conditions.	TS006.001 TS006.002 TS006.003 TS006.004
S-INS-00010	test	The INGST CI shall accept Network Ingest Requests to request automated electronic network ingest of a collection of Data. The collection of Data shall describe one or more Data Granules.	BS002.001 BS002.002 TS004.005
S-INS-00020	test	The INGST CI shall check the Network Ingest Request to verify that the date/time prior to which the data will remain available is a valid date/time.	TS004.008
S-INS-00030	test	The INGST CI shall authenticate the provider of a Network Ingest Request as an authorized provider of data to be ingested.	TS004.001 TS004.002 TS004.003 TS004.004
S-INS-000 40	test	The INGST CI shall report status to the provider of a Network Ingest Request and to the Error Log indicating successful or unsuccessful authentication of the provider as authorized to submit the request.	BS002.001 BS002.002 TS004.001 TS004.002 TS004.003 TS004.004
S-INS-00060	test	The INGST CI shall report status to the provider of a Network Ingest Request for the following: a. File transfer failure b. File size discrepancies c. Invalid Data Type Identifier d. Missing required metadata e. Metadata parameters out of range f. Data conversion failure g. Failure to archive data h. Inability to transfer data within the specified time window i. Missing required request information j. Successful archive of the data	BS002.003 BS002.004

paragraph_id	verif_method	text	test_id
S-INS-00062	test	The INGST CI shall report the following events by means of the CSS Event Logger Service, during the processing of a Network Ingest Request: a. Receipt of an unexpected message from the ingest provider; b. Detection of invalid information on a message received from the ingest provider; c. Communication failure with the provider of the Ingest Request, as reported to the INGST CI by CSS communication services; d. File transfer failures reported to the INGST CI by the CSS File Access Service; e. Detection of discrepancies between the number and sizes of the file(s) received and the specifications in the Ingest Request.	BS002.003 BS002.004
S-INS-00064	test	The INGST CI shall report the following events by means of the CSS Event Logger Service, during tests of the network ingest interface between ECS and TRMM: a. Receipt of a message by the Ingest interface; b. Start of processing for a valid Ingest Request; c. Completion of all processing associated with the Ingest Request	BS002.001 BS002.002
S-INS-00100	test	The INGST CI shall provide the capability to periodically check a location accessible to the ESN for the presence of data granule files.	BS002.005
S-INS-00110	test	The INGST CI shall submit an Polling Ingest Request after detecting the presence of data granule files in a location accessible to the ESN. The request shall contain the file location.	BS002.005
S-INS-00415	test	The INGST CI shall provide an interim capability to electronically transfer data to be ingested via the ESN into a specified ECS storage location for early interface testing purposes.	BS002.001 BS002.002 BS002.005 TS005.001 TS005.002 TS005.003 TS005.004
S-INS-00520	test	The INGST CI shall ingest data, provided by the SDPF, from the ESN into the LaRC DAAC, using a file transfer protocol.	BS002.001 TS005.001 TS005.003
S-INS-00540	test	The INGST CI shall ingest data, provided by the SDPF, from the ESN into the MSFC DAAC using a file transfer protocol.	BS002.001 TS005.001 TS005.003
S-INS-00560	test	The INGST CI shall ingest Data, provided by the TSDIS, from the ESN into the GSFC DAAC using a file transfer protocol.	BS002.002 TS005.002 TS005.004
S-INS-00570	test	The INGST CI shall ingest Data, provided by the TSDIS, from the ESN into the MSFC DAAC using a file transfer protocol.	BS002.002 TS005.002 TS005.004
S-INS-00620	demo	The INGST CI shall ingest data, provided by the DAO, from the ESN into the LaRC DAAC using a file transfer protocol.	BS002.005
S-INS-00630	demo	The INGST CI shall ingest data, provided by NESDIS, from the ESN into the LaRC DAAC using a file transfer protocol.	BS002.005
S-INS-00640	demo	The INGST CI shall ingest data, provided by the DAO, from the ESN into the GSFC DAAC using a file transfer protocol.	BS002.005

paragraph_id	verif_method	text	test_id
S-INS-60150	demo	The ICLHW CI shall have provision for Initialization, Recovery, and an orderly shutdown.	TS003.005
S-INS-60190	demo	The ICLHW CI shall have a status monitoring capability.	TS003.005
S-INS-60430	inspection	The ICLHW CI platforms shall have provision for interfacing with one or more Local Area Networks (LANs).	TC017.001
S-INS-60510	inspection	The electrical power requirements for ICLHW CI equipment shall be in accordance with and the ECS Facilities Plan (DID 302/DV2).	TC017.001
S-INS-60540	inspection	The air conditioning requirements for ICLHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	TC017.001
S-INS-60550	inspection	The grounding requirements for ICLHW CI equipment shall be in accordance with ECS Facilities Plan (DID 302/DV2).	TC017.001
S-INS-60560	inspection	The fire alarm requirements for ICLHW CI equipment shall be in accordance with ECS Facilities Plan (DID 302/DV2).	TC017.001
S-INS-60580	inspection	The physical interface requirements between ICLHW CI equipment and the facility shall be in accordance with ECS Facilities Plan (DID 302/DV2).	TC017.001
S-INS-60590	inspection	The footprint size and the physical layout of ICLHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	TC017.001
S-INS-60605	inspection	The ICLHW CI shall support test activities throughout the development phase.	S/W Development Notebooks
S-INS-60610	inspection	The following testing shall be performed on the ICLHW CI: a. Unit Testing b. Subsystem testing c. Integration & Testing d. End-to-End testing	S/W Development Notebooks and I&T CDRLs
S-INS-60650	inspection	The ICLHW CI shall be capable of being monitored during testing.	TC017.001
S-INS-60810	inspection	The operating system for each UNIX platform in the ICLHW CI shall conform to the POSIX.2 standard.	TC017.001
S-INS-60820	inspection	The ICLHW CI POSIX.2 compliant platform shall have the following utilities installed at a minimum: perl, emacs, gzip, tar, imake, prof, gprof, nm.	TC017.001
S-INS-60830	inspection	The ICLHW CI POSIX.2 compliant platform shall have the following POSIX.2 user Portability Utilities installed at a minimum: man, vi.	TC017.001
S-INS-60840	inspection	The ICLHW CI POSIX.2 compliant platform shall have the following POSIX.2 Software Development Utilities installed at a minimum: make.	TC017.001
S-INS-60850	inspection	The ICLHW CI POSIX.2 compliant platform shall have the following POSIX.2 C-Language Development Utilities installed at a minimum: lex, yacc.	TC017.001
S-INS-60860	inspection	The ICLHW CI POSIX.2 compliant platform shall have the following UNIX shells installed at a minimum: C shell, Bourne shell, Korn shell.	TC017.001
S-INS-60870	inspection	The ICLHW CI POSIX.2 compliant platform shall have on-line documentation or printed documentation for each installed tool.	TC017.001

paragraph_id	verif_method	text	test_id
S-INS-60880	inspection	The ICLHW CI POSIX.2 compliant platform shall have installed one or more development environment supporting the following languages:	TC017.001
S-INS-60890	inspection	Each development environment associated with the POSIX.2 compliant platform in the ICLHW CI shall have the capability to compile and link strictly conformant POSIX-compliant source code.	TC017.001
S-INS-60895	inspection	Each development environment associated with the POSIX.2 compliant platform in the ICLHWCI shall have an interactive source level debugger for ECS supported languages.	TC017.001
No Explicit Requirements - Basic Demo of DCE DNS	demo		TC003.008
No Explicit Requirements - Basic Demo of DCE DNS	demo		TC004.001
No Explicit Requirements - Basic Demo of DCE DNS	demo		TC004.002
No Explicit Requirements - Basic Demo of DCE DNS	demo		TC004.003
No Explicit Requirements - Basic Demo of DCE DNS	demo		TC005.001
No Explicit Requirements - Basic Demo of DCE DNS	demo		TC005.002
No Explicit Requirements - Basic Demo of DCE DNS	demo		TC005.003
No Explicit Requirements - Basic Demo of DCE DNS	demo		TC005.004
No Explicit Requirements - Basic Demo of DCE DNS	demo		TC005.005
No Explicit Requirements - Basic Demo of DCE DNS	demo		BC008.001

TRMM ICD Section References for Test Traceability

Section	Title	Description	Test_ID
4.2	Table 4-1. Control Messages	Handshaking control messages and file transfer sequences. Includes a high level description for each message and its purpose.	
4.2.1	Figure 4-1. ECS Retrieves Data from TSDIS	Event traces for message sequencing and handshaking between TSDIS and ECS.	TS005.001 TS005.002 TS005.003 TS005.004 BS002.001 BS002.002
4.2.2	Figure 4-2. TSDIS Requests/Retrieves Data from ECS	Event traces for message sequencing and handshaking between TSDIS and ECS.	TS006.003 TS006.004
4.2.3	Figure 4-3. TSDIS Requests Data for TSUs	Event traces for message sequencing and handshaking between TSDIS / ECS and TSUs / ECS.	TS006.003 TS006.004
4.2.4	Figure 4-4. TSDIS Requests Status of Data Request	Event traces for message sequencing and handshaking between TSDIS and ECS.	TS006.003 TS006.004
4.2.5	Figure 4-5. TSDIS Sends ECS Cancellation Request	Event traces for message sequencing and handshaking between TSDIS and ECS.	
4.3.1	Table 4-2. Authentication Request Message Definition	Message format and contents for Authentication Request.	TS004.001 TS004.002 TS004.003 TS004.004
4.3.2	Table 4-3. Authentication Response	Message format and contents for Authentication Response.	TS004.001 TS004.002 TS004.003 TS004.004
4.3.3	Table 4-4. DAN Message Header, and EDU and DAN Labels	Message format and contents for Data Availability Notice.	TS004.005 TS004.006 TS004.007 TS004.008
4.3.3	Table 4-5. Required DAN PVL Parameters	PVL parameter descriptions and data types.	TS004.005 TS004.006 TS004.007 TS004.008
4.3.4	Table 4-6. Short DAA Message Definition	Message format and contents for Short Data Availability Acknowledgment.	TS004.005 TS004.006 BS002.001 BS002.002
4.3.4	Table 4-7. Long DAA Message Definition	Message format and contents for Long Data Availability Acknowledgment.	TS004.007 TS004.008 BS002.003 BS002.004

Section	Title	Description	Test_ID
4.3.5	Table 4-8. Short DDN Message Definition	Message format and contents for Short Data Delivery Notice.	TS005.001 TS005.002 TS005.003 TS005.004 BS002.001 BS002.002
4.3.5	Table 4-9. Long DDN Message Definition	Message format and contents for Long Data Delivery Notice.	BS002.003 BS002.004
4.3.6	Table 4-10. Short DDA Message Definition	Message format and contents for Short Data Delivery Acknowledgment.	TS005.001 TS005.002 TS005.003 TS005.004 BS002.001 BS002.002
4.3.6	Table 4-11. Long DDA Message Definition	Message format and contents for Long Data Delivery Acknowledgment.	BS002.003 BS002.004
4.3.7	Table 4-12. DR Message Format	Message format and contents for Data Request.	TS006.003 TS006.004
4.3.8	Table 4-13. DRA Message Format	Message format and contents for Data Request Acknowledgment.	TS006.003 TS006.004
4.3.11	Table 4-16. Data Request/Subscription Status Request	Message format and contents for Data Request/Subscription Status Request.	TS006.003 TS006.004
4.3.12	Table 4-17. Data Request/Subscription Status	Message format and contents for Data Request/Subscription Status.	TS006.003 TS006.004
4.3.13	Table 4-18. Data Request/Subscription Cancellation Request	Message format and contents for Data Request/Subscription Cancellation Request.	TS006.003 TS006.004
4.3.14	Table 4-19. Data Request/Subscription Cancellation	Message format and contents for Data Request/Subscription Cancellation.	TS006.003 TS006.004
5.0	Figure 5-1. Data Flows Between ECS and TSDIS	High Level description of data flows between TSDIS/GSFC and TSDIS/MSFC.	
5.3.2	Ancillary Data - National Meteorological Center (NMC)	Description of data transfers from ECS to TSDIS.	TS006.003 TS006.004

Data Server Interface Ir1 Objectives for Test Traceability

(Mission Statement for Ir1, August 1995)

Section	Title	Description	Test_ID
6.0	TRMM Interface Testing	Describes the high level interface expectations from Ir1. More detail can be found in the May 1995 whitepaper: "TRMM Early Interface Testing Data Server/Ingest Support Plan."	TS006.001 TS006.002 TS006.003 TS006.004

PDPS Ir1 Objectives for Test Traceability

(Ir1 AI&T and PDPS Design Inspection, May 31, 1995)

Objective	Implementation Object	Test_ID
Run single PGEs		TS003.008
To be able to **monitor site and element hardware, on-line/failed system status.**		B03.07.01
To be able to enter via a GUI the PGE Profile data required to run PGEs of a specific PGE type within the Ir1 AI&T Production system.	DpAtPrGui, DpATPgeDb, DpAtPcFileGui, DpAtPgeTypeList (all GUIs)	B03.07.01
Perform fault analysis including Isolation, Location,Equipment, and Subsytem.		B03.07.01
To be able to enter via a GUI a reduced set of DPR information for a PGE instance.	DpAtDprGui, DpAtDprGuiSelect (all GUIs)	B03.07.01
To provide the capability to Suspend, Resume, and Cancel execution of tasks.	DpAtDprGui, DpAtDprGuiSelect (all GUIs)	B03.06.03 **B03.06.04** **B03.06.05**
Provide working storage.		TS003.006
Platforms shall have the following utilities installed: a. perl b. emacs c. gzip d. tar e. imake f. prof g. gprof h. nm i. man j. vi k. make l. lex m. yacc n. Bourne shell o. Korn shell		TS003.006
Support multiple PGEs in sequence.		TS003.006
To have the provision for Initialization, Recovery, and an orderly Shutdown.		TS003.005
Provide manual processing initiation and control.		TS003.005
Provide status monitoring.		TS003.005
To be able to trigger the execution of a PGE from the completion of another PGE (PGE chaining), conditional branching capability.	DpAtDPR, DpAtJobEntry, DpAtDprGui, Scheduler COTS	TS003.004
To create a Process Control file for a PGE instance from the information entered in its DPR.	DpAtPcFileInfo, DpAtExecution	B03.06.02
Perform Data Input and processing.	DpAtPcFileInfo, DpAtExecution	B03.06.02
Provide error logging notifying system operators of conditions requiring their attention.		B03.06.02
Provide interfaces to CSS and MSS APIs.		B03.06.02
To be able to enter planning and resource profile information for a PGE type into its PGE Profile.	DpAtPrGui, DpAtPgeDb (all GUIs)	B03.06.03
To be able to run an individual instance of a PGE type.	All	B03.06.06
To be able to run individual instances of a PGE type with different input data.	All	B03.06.04

Objective	Implementation Object	Test_ID
To be able to capture the resource usage profile for a PGE execution.	AI&T profiling tool	B03.06.12
To include the same scheduling COTS as selected for Release A Planning and Processing.	Scheduling COTS	B03.06.11
To be able to generate processing log for all data processing.	AI&T profiling tool	B03.06.11 **B03.06.12**
To be able to select an input/output/log file for a PGE instance and initiate its viewing.	DpAtDataView, DpAtFileList, DpAtFileListGui (all GUIs)	B03.06.07

Note: NO automated planning functionality or data server access is planned for Ir1. Data is assumed available on a local

Remote AI&T Access for SCFs Objectives for Test Traceability

Objective	Implementation Object	Test_ID
Capability provides remote users to access the various AI&T utilities at a given DAAC for purposes of algorithm integration and test prior to delivery of the SCF version to the DAAC.		BS001.005

The following matrix provides a mapping of RBR to test cases.

req't_id	verif_method	text	test_id
DADS0130#Ir1	test	Each DADS shall receive from the SDPF, at a minimum, the following: a. Production data (L0)	TS004.005 TS005.001 TS005.003
DADS0145#Ir1	test	Each DADS shall be capable of receiving from the ADCs, at a minimum, the following for the purpose of product generation: b. Metadata c. Ancillary data	BS002.005
DADS0170#Ir1	test	Each DADS shall be capable of receiving from designated EPDSs and ODCs, at a minimum, the following: a. L0-L4 data sets b. Metadata	TS004.005 TS004.006 TS005.002 TS005.004 BS002.001 BS002.002
DADS0190#Ir1	test	Each DADS shall receive from the SCF, at a minimum, the following: g. Algorithms	BS002.001 T03-01.05.01
DADS0250#Ir1	test	Each DADS shall receive, at a minimum, data in the following forms: b. Electronic communications network	TS005.001 TS005.002 TS005.003 TS005.004 BS002.001 BS002.002 BS002.005
DADS0260#	test	Each DADS shall receive non-EOS correlative and ancillary digital data.	BS002.005
DADS1070#Ir1	test	The DADS shall send data check and storage status to the provider of ingest data.	BS002.003 BS002.004
DADS1380#	test	Each DADS shall monitor data transfer between external (non-ECS) elements and the DADS.	BS002.003 BS002.004
DADS1400#Ir1	test	Each DADS shall notify the originating source of the need to retransmit data in the event of transmission difficulties.	BS002.003 BS002.004
DADS2450#Ir1	test	Each DADS shall distribute data to elements of EOSDIS and approved non-EOSDIS data destinations.	TS006.001 TS006.002 TS006.003 TS006.004
EOSD0500#Ir1	test	ECS shall perform the following major functions: d. Communications and Networking e. Data Input f. Data Processing	B01.01.01 B01.01.02 B01.01.03 B03.06.01 B03.06.02 B03.06.03 B03.06.04 B03.06.05 B03.06.06 B03.06.07 B03.06.08 B03.06.09 B03.06.10 B03.06.11 B03.06.12

req't_id	verif_method	text	test_id
EOSD0502#Ir1	demo	ECS shall provide an integrated set of toolkits consisting of software tools for each ECS element.	B03.04.01 B03.05.01 B03.06.01 B03.06.02 B03.06.03 B03.06.04 B03.06.05 B03.06.06 B03.06.07 B03.06.08 B03.06.09 B03.06.10 B03.06.11 B03.06.12 T03-01.08.01 T03-01.08.02 T03-01.08.03 T03-01.09.01 T03-01.09.02 T03-01.09.03 TS001.002
EOSD0510#Ir1	inspection	ECS shall be capable of being tested during all phases of its development .	TC017.001
EOSD0730#Ir1	inspection	Each ECS element shall be capable of verifying the fidelity of the ECS element interface to: b. Entities external to ECS at any time during the lifetime of the ECS	TC017.001
EOSD0780#Ir1	demo	Each ECS element shall be capable of being monitored during testing.	TC014.001
EOSD1607#Ir1	test	ECS shall receive data from near term Earth Probe missions to include the following as a minimum: a. TRMM data for temporary storage for testing purposes only.	TS005.001 TS005.002 TS005.003 TS005.004 BS002.001 BS002.002
EOSD1608#Ir1	test	ECS elements shall receive from EPDSs the following at a minimum: a. Data products e. Metadata	TS005.002 TS005.003 TS005.004 BS002.001 BS002.002
EOSD1703#Ir1	demo	ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: b. Science Algorithm Integration	T04-01.05.01
EOSD1710#Ir1	demo	ECS elements shall exchange with ADCs/ODCs, such as NOAA and other data processing and archiving facilities, information including the following: d. Science Data	BS002.005
EOSD1750#Ir1	demo	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes d. Integration support requests	B03.13.01 B03.13.02 T03-01.04.02

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EOSD1760#Ir1	demo	The ECS elements shall send the following types of data at a minimum to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports	B03.13.01 B03.13.02
EOSD3200#Ir1	inspection	A minimum of one backup which is maintained in a separate physical location (i.e., different building) shall be maintained for ECS software.	T04-01.05.02
EOSD5020#Ir1	inspection	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.	TC017.001
ESN-0003#Ir1	demo	The ESN shall enable researchers on existing networks (TCP/IP and GOSIP) to gain access to data and ECS services in a transparent manner to the underlying differences between the networks.	B01.01.01 B01.01.02 B01.01.03 T01-02.02.01 T01-02.02.02 T01-02.02.03 T01-02.02.04 T01-02.05.07
ESN-0006#Ir1	analysis	ESN shall interface with NSI to reach all external non-ECS network-attached facilities and science users.	B01.01.02 B01.01.03
ESN-0010#Ir1	test	ESN shall provide the following standard services: a. Data Transfer and Management Services b. Electronic Messaging Service c. Remote Terminal Service d. Process to Process Communication Service e. Directory and User Access Control Service f. Network Management Service g. Network Security and Access Control Service h. Internetwork Interface Services	B01.01.01 B01.01.02 B01.01.03 B01.02.01 B01.02.02 T01-02.04.01 TC003.001 TC003.002 TC003.007 TC003.008 TC006.002 TC014.002
ESN-0070#Ir1	test	The ESN shall support the elements data flow requirements identified in this specification.	B03.14.02
ESN-0210#Ir1	test	The ESN management function shall have a capability to obtain status on specific data flows to assure the successful operation of ESN.	TC014.001
ESN-0250#Ir1	demo	The ESN shall provide a help service to assist users with communication questions and problems.	Not part of Ir1
ESN-0280#Ir1	test	The ESN shall provide file transfer and management service and as a minimum shall include the capability to transfer the following data types: a. Unstructured Text b. Binary Unstructured c. Binary Sequential d. Sequential Text	T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08 B01.07.01 B01.07.02 TC009.001 TC009.004

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ESN-0290#Ir1	test	The file transfer and management service shall be available in interactive and non-interactive services.	T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08 B01.07.01 B01.07.02 TC009.001 TC009.004
ESN-0370#Ir1	test	The ESN shall provide interactive virtual terminal services.	B01.01.01 B01.01.02 B01.01.03
ESN-0620#Ir1	test	The ESN shall include a network management function to monitor and control the ESN.	TC014.001 TC014.002
ESN-0640#Ir1	test	The ESN shall include management functions at each ECS element, equipment or gateway within the ESN.	TC014.001 TC014.002
ESN-0650#Ir1	test	The ESN shall perform the following network management functions for each protocol stack implemented in any ECS element, and each communications facility: a. Network Configuration Management b. Network Fault Management c. Network Performance Management d. Network Security Management	TC013.005 TC014.001 TC014.002 TC014.003 TC014.005
ESN-0740#Ir1	test	The ESN network management service shall retrieve performance/fault data about ESN protocol stacks and equipment.	TC014.005
ESN-0760#Ir1	test	The ESN report generation function shall provide, on an interactive and scheduled basis, network configuration, fault and performance management information.	TC014.002 TC014.005
ESN-0775#Ir1	test	The ESN management service shall have the capability to redirect its reports to different devices such as console, disk or printer.	TC014.002
ESN-0790#Ir1	test	The ESN shall include the following configuration management functions at a minimum: a. collect information describing the state of the network subsystem and its communications resources, b. exercise control over the configuration, parameters, and resources of the subsystem, and over the information collected, c. store the configuration information collected, and d. display the configuration information.	TC014.002
ESN-0800#Ir1	test	The ESN shall be capable of displaying the local network configuration status related to each system locally, and for all systems at the ESN network management facility.	TC014.001
ESN-0830#Ir1	test	The ESN shall have the capability to detect and report communications related errors and events both locally and at the ESN network management facility.	TC014.001 TC014.002
ESN-0840#Ir1	test	The ESN shall have error reporting and event logging.	TC013.003 TC014.003

req't_id	verif_method	text	test_id
ESN-0900#Ir1	test	Errors and events to be detected shall include at least: b. communications hardware errors c. protocol errors d. performance degradation conditions e. telecommunications errors and failures	TC013.003 TC014.003
ESN-0910#Ir1	test	The ESN fault management shall provide the capability to perform the following functions, at a minimum, both locally and at the ESN network management facility: c. enable and disable event reports within a system d. manage error and event logging files	TC013.003 TC014.002
ESN-1060#Ir1	test	The ESN performance management function shall provide the capability to evaluate the performance of ESN resources and interconnection activities.	TC013.005 TC014.005
ESN-1070#Ir1	test	The ESN shall provide the capability to perform the following functions, at a minimum: a. generate/collect network statistics b. control collection/generation of network statistics c. store system statistics and statistical histories d. display the system statistics	TC014.001
ESN-1140#Ir1	test	The ESN shall provide protocol translation, termination, bridging and routing.	TC004.001
ESN-1170#Ir1	test	The ESN shall provide necessary translation within supported file transfer and e-mail services.	B01.07.01 B01.07.02 T01-02.04.01 T01-02.04.02 T01-02.04.03 T01-02.04.04 T01-02.04.05 T01-02.04.06 T01-02.04.07 T01-02.04.08 T01-02.05.01 T01-02.05.02 T01-02.05.04 T01-02.05.05 TC006.002 TC009.001 TC009.003 TC009.004
ESN-1180#Ir1	test	The ESN shall interoperate with NSI to provide user access to ECS.	T01-02.05.07
ESN-1340#Ir1	inspection	The ESN shall provide support for TCP/IP communications protocols and services to external interfaces as required by the IRDs.	T01-02.05.07
ESN-1350#Ir1	inspection	The ESN LANs shall provide physical devices and the corresponding medium access control (MAC) protocol compatible with ISO and ANSI standards.	TC017.001
NI-0400#Ir1		ECS shall have the capability to interface with NASA Data Processing Facilities (including the GSFC SDPF) via NOLAN to receive the following data (at a minimum): a. Science data b. Ancillary data c. Orbit data	TS005.001 TS005.003 BS002.001

req't_id	verif_method	text	test_id
PGS-0270#Ir1	test	The PGS shall provide the capability to perform the following functions, at a minimum: b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks	B03.06.01
PGS-0360#Ir1	test	The PGS shall generate a PGS processing log that accounts for all data processing activities.	B03.06.01 B03.06.02 B03.06.03 B03.06.04 B03.06.05 B03.06.06 B03.06.07 B03.06.08 B03.06.09 B03.06.10 B03.06.11 B03.06.12 B03.07.01 B03.07.02 B03.07.03 B03.07.04
PGS-0370#Ir1	test	The PGS shall utilize the LSM to generate a PGS resource utilization report.	B03.06.01 B03.06.02 B03.06.11 B03.06.12 B03.07.01
PGS-0400#Ir1	test	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.	B03.02.01
PGS-0430#Ir1	test	The PGS shall utilize the LSM to monitor and account for data and information transfer between it and other EOSDIS elements.	T01-02.05.07
PGS-0490#Ir1	test	The PGS shall have the capability to access and use, for the generation of Standard Products, information such as: a. Digital terrain map databases b. Land/sea databases c. Climatology databases d. Digital political map databases	B03.10.01 B03.10.02 B03.10.03 B03.10.04 B03.10.05 B03.10.06 B03.10.07
PGS-0602#Ir1	test	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).	B03.03.01 B03.03.02 B03.03.03

req't_id	verif_method	text	test_id
PGS-0610#Ir1	test	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update	T03-01.09.01 T03-01.09.02 T03-01.09.03
PGS-0620#Ir1	test	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.	B03.03.01 B03.03.02 B03.03.03
PGS-0640#Ir1	test	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation	T03-01.05.01 T03-01.05.06
PGS-0650#Ir1	test	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs	B03.03.01 B03.03.02 B03.03.03
PGS-0860#Ir1	test	The PGS shall have the capability to schedule and coordinate algorithm and calibration coefficient test time in the test environment with the appropriate SCF.	B03.13.01 B03.13.02
PGS-0900#Ir1	test	The PGS shall send test products to the SCF for analysis. These shall contain the results of algorithm testing and shall contain the following information at a minimum: a. Algorithm identification b. Test time(s) c. Processor identification d. Test results	B03.09.01 B03.09.02 B03.09.03
PGS-0910#Ir1	test	The PGS shall have the capability to support analysis of algorithm test results.	B03.08.01 B03.08.02 B03.09.01 B03.09.02 B03.09.03

req't_id	verif_method	text	test_id
PGS-0920#Ir1	test	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.	B03.04.01 B03.05.01 B03.08.01 B03.08.02 B03.09.01 B03.09.02 B03.09.03 T03-01.08.01 T03-01.08.03 TS001.001 TS001.002 TS001.003
PGS-0925#Ir1	test	The PGS shall validate algorithms used for conversions, calibrations and transformations of EOS engineering data.	B03.04.01 B03.05.01 TS001.001 TS001.002 TS001.003
PGS-0940#Ir1	test	The PGS shall provide storage for all candidate algorithms' software executables and calibration coefficients.	TC017.001 TS001.00
PGS-0950#Ir1	test	The PGS shall interface to the SMC to maintain configuration control of all algorithms and calibration coefficients used in operational Standard Product production. Controlled information shall contain at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data, and results c. Date and time of operational installation d. Compiler identification and version e. Final algorithm documentation	B03.02.01 T03-01.05.01 T03-01.05.06
PGS-0970#Ir1	test	The PGS shall provide file access subroutines that enforce compliance with the adopted standard ECS formats.	TS001.002 TS001.003
PGS-0980#Ir1	test	The PGS shall provide job control routines that provide all required task parameters to the Standard Product software.	B03.06.01 B03.06.02 B03.06.03 B03.06.04 B03.06.05 B03.06.06 B03.06.07 B03.06.08 B03.06.09 B03.06.10 B03.06.11 B03.06.12

req't_id	verif_method	text	test_id
PGS-0990#Ir1	test	The PGS shall provide error logging subroutines for use by Standard Product software in notifying the system operators of conditions requiring their attention.	B03.06.01 B03.06.02 B03.06.03 B03.06.04 B03.06.05 B03.06.06 B03.06.07 B03.06.08 B03.06.09 B03.06.10 B03.08.01 B03.08.02 B03.09.01 B03.09.02 B03.09.03
PGS-1000#Ir1	test	The PGS shall provide error logging subroutines for use by Standard Product software in notifying users of conditions requiring their attention.	B03.03.01 B03.03.02 B03.03.03 B03.04.01 B03.05.01 B03.06.01 B03.06.02 B03.06.03 B03.06.04 B03.06.05 B03.06.06 B03.06.07 B03.06.08 B03.06.09 B03.06.10 B03.08.01 B03.08.02 B03.09.01 B03.09.02 B03.09.03
PGS-1010#Ir1	test	The PGS shall provide mass storage allocation subroutines that provide algorithms with a means for dynamic allocation of storage for temporary files.	B03.06.01
PGS-1015#Ir1	test	The PGS shall provide ancillary data access subroutines that provide Standard Product software access to ephemeris data (e.g., solar, lunar, and satellite ephemeris), Earth rotation data, and time and position measurement data. These subroutines shall perform operations such as: a. Interpolation b. Extrapolation c. Coordinate system conversion	T03-01.08.01 T03-01.08.03 T03-01.09.01 T03-01.09.02 T03-01.09.03 TS001.002 TS001.003
PGS-1020#Ir1	test	The PGS shall provide mathematical libraries including: a. Linear algebra and analysis (e.g., LINPAC, IMSL) b. Statistical calculations (e.g., SAS, SPSS)	T03-01.08.01 T03-01.08.02 T03-01.08.03

req't_id	verif_method	text	test_id
PGS-1025#Ir1	test	The PGS shall provide a Science Processing Library containing routines such as: a. Image processing routines b. Data visualization routines c. Graphics routines	B03.12.03
PGS-1030#Ir1	test	The PGS shall provide a toolkit to the SCF containing versions of the routines specified in requirements PGS-0970 to PGS-1020.	T03-01.08.01 T03-01.08.02 T03-01.08.03
PGS-1220#Ir1	test	The PGS shall have the capability to receive GFE databases and associated tools, including COTS and public domain databases, and maintain them as required as inputs to product generation: Example databases are: a. Digital terrain map databases b. Land/sea databases c. Climatology databases d. Digital political map databases	T03-01.06.01
PGS-1315#Ir1	test	Each PGS shall have the capacity to support I/O to temporary and intermediate storage or multiple passes over input products as required by individual science algorithms.	B03.13.03 B03.14.02
SCF-0001#Ir1	inspection	The SCF interface platform shall adhere to requirements specified in the Data Production Software and SCF Standards and Guidelines, GSFC 423-16-01. This standards document includes SCF requirements for operating system, computer communications, e-mail protocol, and windowing protocol.	TC017.001
SCF-0010#Ir1	inspection	The SCF interface shall consist of an ESDIS approved computing platform that shall have a C compiler. To access FORTRAN routines in the ECS Toolkits, the platform shall also have a FORTRAN compiler.	TC017.001
SCF-0030#Ir1	inspection	The SCF interface platform shall have adequate computing resources for the storage, compilation, linking, and execution of ECS supplied software resident on the platform.	TC017.001
SCF-0040#Ir1	demo	The ECS shall have the capability to send to the SCFs the Data Production software Specification Requirements describing what is required for completing the Initial Production Software Specifications.	TC009.001 TC009.003 TC009.004
SCF-0050#Ir1	demo	The ECS shall have the capability to accept from the SCF a set of Initial Data Production Software Specifications that provides the software design description and operations concepts of the data production software to be delivered and estimates storage and processing resources required for the data production software to operate successfully in the ECS operational environment. These specifications are described in the Data Production Software Specification Requirements.	TC009.001 TC009.003 TC009.004

req't_id	verif_method	text	test_id
SCF-0060#Ir1	test	The ECS shall have the capability to provide to the SCF the Toolkit Delivery and Update Package. This package includes the PGS toolkit which supplies tools for the emulation of the ECS production environment and contains a ECS-standardized software routines to aid in science data production software development.	TC009.001 TC009.004 BS001.001 BS002.002 TS005.001 TS005.002 TS005.003 TS005.004
SCF-0070#Ir1	demo	The ECS shall have the capability to provide Integration and Test Specifications to the scientist at the SCF. These specifications are defined by the Data Processing Focus Team. These specifications are implemented in the Data Production Software Delivery Package and support smooth integration of the data production software into the ECS production environme	TC009.001 TC009.004 BS002.001 BS002.002 TS005.001 TS005.002 TS005.003 TS005.004
SCF-0080#Ir1	demo	The ECS shall have the capability to provide an Interactive Session Dialog with the SCF. This dialog, to aid integration and test of the data production software into the ECS production environment, shall support, at a minimum, general communications between the ECS and the SCF that include logins, mail messages, status reports, test coordination, test execution scripts, and solutions to minor problems.	BS001.005
SCF-0100#Ir1	demo	The ECS shall have the capability to forward Test Products to the SCF. These products generated by the science software at the ECS will require the review of the scientist at the SCF who submitted the software.	TC009.001 TC009.003 TC009.004
SCF-0110#Ir1	demo	The ECS shall have the capability to receive Test Product Reviews from the SCF. These reviews shall include the comments and recommendations of the scientist at the SCF who has reviewed the Test Products.	TC009.001 TC009.003 TC009.004
SCF-0120#Ir1	demo	The ECS shall have the capability to receive Data Production Software Updates from the SCF. These Data Production Software Updates include modifications to any data production software already submitted to the ECS by the SCF. The Data Production Software Updates may include some or all the items required in the Data Production Software Delivery Package.	TC009.001 TC009.003 TC009.004
SCF-0330#Ir1	demo	The ECS shall have the capability to receive a Calibration Coefficient Update Package from the SCF. This package shall include a calibration coefficient file and other documentation needed to implement the updated coefficients.	TC009.001 TC009.003 TC009.004
SDPS0010#Ir1	test	The SDPS shall provide CSMS with operational, and data processing, data quality status.	B03.02.01 BS002.001
SDPS0020#Ir1	test	The SDPS shall receive EOS science, and engineering data from the SDPF, and non-EOS ancillary data (as listed in Appendix C) from ADCs.	TS004.005 BS002.001 BS002.005
SDPS0080#Ir1	test	The SDPS shall quality check all science data received from the EPDSs and ancillary data received from the ADCs.	BS002.003 BS002.004

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SDPS0090#Ir1	inspection	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.	TS002.014
SDPS0110#Ir1	test	The SDPS shall be responsible for coordination of the transfer of production and quick-look science and engineering data from SDPF.	TS004.005 TS005.001 TS005.003 BS002.001 BS002.003
SMC-2505#Ir1	Inspection	The LSM shall update the system-wide inventory database consisting of all hardware, system software, and scientific software contained within its element.	TC017.001
SMC-2510#Ir1	analysis	The SMC shall provide at a minimum system-wide configuration management for the operational hardware, scientific and system software, and the SMC toolkit contained within ECS.	T03-01.01.01 T03-01.02.01 T03-01.04.01 T03-01.04.02 T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05 T03-01.05.06
SMC-2515#Ir1	test	The LSM shall provide configuration management for at least the operational hardware, system software, and scientific software within its element and for the migration of enhancements into the operational system.	T03-01.01.01 T03-01.02.01 T03-01.04.02 T03-01.05.01 T03-01.05.02 T03-01.05.03 T03-01.05.04 T03-01.05.05 T03-01.05.06
SMC-3300#Ir1	demo	The SMC shall monitor site and element hardware, and scientific and system software status to determine their operational states including, at a minimum: a. On-line b. Failed	B03.07.01 B03.07.02 B03.07.03 B03.07.04 B03.11.01 B03.11.02 B03.11.03 B03.11.04 T04-01.01.06 T04-01.01.12 T04-01.01.18 T04-01.01.20 TC014.001 TC014.002

req't_id	verif_method	text	test_id
SMC-3305#Ir1	test	The LSM shall monitor its element's hardware, and scientific and system software status to determine their operational states including, at a minimum : a. On-line b. Failed	B03.07.01 B03.07.02 B03.07.03 B03.07.04 B03.11.01 B03.11.02 B03.11.03 B03.11.04 T04-01.01.06 T04-01.01.12 T04-01.01.18 T04-01.01.20 TC014.001 TC014.002
SMC-3370#Ir1	test	For each performance parameter, the SMC shall have the capability of establishing multiple levels of thresholds to include, at a minimum: a. On/off b. Pass/fail c. Various levels of degradation	TC013.005
SMC-3375#Ir1	test	For each limit checked parameter, the LSM (including those thresholds directed by the SMC) shall have the capability of evaluating multiple levels of thresholds including, at a minimum: a. On/off b. Pass/fail	TC013.005
SMC-3380#Ir1	analysis	The SMC shall evaluate overall system performance.	T04-01.02.01 T04-01.02.02
SMC-3390#Ir1	test	The SMC shall generate alert indicators of fault or degraded conditions.	TC014.002
SMC-3395#Ir1	test	The LSM shall generate, in response to each limit check threshold, alert indicators of fault or degraded conditions with the appropriate corrective actions.	T04-01.02.01 T04-01.02.02
SMC-3415#Ir1	test	The LSM shall perform short and long-term trend analysis of element performance, including, at a minimum: a. Operational status b. Performance of a particular resource c. Maintenance activities (e.g., number of repairs per item)	T04-01.02.01 T04-01.02.02
SMC-4305#Ir1	Inspection	The LSM shall maintain fault management policies and procedures for its element.	T04-01.02.03
SMC-4310#Ir1	analysis	The SMC shall perform fault analysis including, at a minimum: a. Isolation b. Location c. Identification d. Characterization	B03.07.01 B03.07.02 B03.07.03 B03.07.04
SMC-4311#Ir1	demo	The SMC shall have the capability to perform fault analysis to the level of, at a minimum: a. Subsystem b. Equipment	B03.07.01 B03.07.02 B03.07.03 B03.07.04

req't_id	verif_method	text	test_id
SMC-4315#Ir1	test	The LSM shall, at a minimum, isolate, locate, and identify faults, identify subsystem, equipment, and software faults, and identify the nature of the faults within its element.	B03.07.01 B03.07.02 B03.07.03 B03.07.04
SMC-4320#Ir1	demo	SMC shall support fault diagnosis testing to include, at a minimum: b. Resource-to-resource connectivity testing	T04-01.02.01 T04-01.02.02
SMC-4325#Ir1	demo	The LSM shall request fault diagnosis testing be performed, including, at a minimum: b. Resource-to-resource connectivity testing within its element	T04-01.02.01 T04-01.02.02
SMC-5320#Ir1	test	The SMC shall establish, maintain, and authenticate access privileges for ECS scientific users.	TS004.001 TS004.002 TS004.003 TS004.004 BS002.001 BS002.002
SMC-5325#Ir1	test	The LSM shall promulgate, maintain, authenticate, and monitor user and device accesses and privileges.	TC003.001 TC003.002
SMC-5330#Ir1	test	The SMC shall provide support, manage, maintain, and request security testing that includes, at a minimum, password checking.	TC003.001 TC003.002
SMC-5335#Ir1	test	The LSM shall perform security testing that includes, at a minimum, password auditing and element internal access/privileges checking.	TC003.001 TC003.002
SMC-5365#Ir1	analysis	The LSM shall generate recovery actions in response to the detection of compromises.	TC003.002
SMC-8840#Ir1	test	The SMC shall have the capability to generate detailed and summary reports indicating the performance of ground resources, including, at a minimum: c. Resource utilization	T04-01.02.01 T04-01.02.02
SMC-8880#Ir1	test	The SMC shall have the capability to generate detailed and summary security compromise reports indicating security compromises of ground resources and facilities, including, at a minimum: a. Security compromise type and description b. Time of occurrence	T04-01.02.01 T04-01.02.02
TRMM1010#Ir1	test	The ECS LaRC DAAC shall ingest CERES data from SDPF.	TS004.005 TS005.001 TS005.003 BS002.001
TRMM1020#Ir1	test	The SDPF to the ECS LaRC DAAC data stream shall include Level 0 and quick-look data sets.	TS005.001 TS005.003
TRMM1030#Ir1	test	The SDPF Level 0 and quick-look data sets for CERES shall contain quality and accounting information.	TS005.001 TS005.003
TRMM1060#Ir1	test	The ECS LaRC DAAC shall, after notification by SDPF, retrieve CERES Level 0 production by an agreed-upon file transfer protocol.	TS005.001 TS005.003 BS002.001
TRMM1080#Ir1	test	The ECS LaRC DAAC shall acknowledge successful receipt of a CERES data set from the SDPF.	BS002.003
TRMM1200#Ir1	test	The ECS LaRC DAAC shall ingest predicted orbit data from the SDPF.	TS004.005 TS005.003 BS002.001

req't_id	verif_method	text	test_id
TRMM1210#Ir1	test	The ECS LaRC DAAC shall ingest definitive orbit data from the SDPF.	TS004.005 TS005.003 BS002.001
TRMM1230#Ir1	inspection	The CERES instrument team and science team shall define the ancillary, correlative, and flight dynamics data and algorithms needed for their processing.	TC017.001
TRMM1240#Ir1	inspection	The CERES instrument team and science team shall provide the quick-look data processing algorithms and quick-look operations concept needed for CERES.	TC017.001
TRMM1280#Ir1	test	ECS shall be able to accept CERES simulated data from SDPF.	TS004.005 TS005.001 TS005.003 BS002.001
TRMM1290#Ir1	inspection	The interfaces between TRMM and ECS shall make appropriate use of standards for data structures and data transport as defined for use within the publications of CCSDS and ISO/OSI, and shall use commercial off-the-shelf (COTS) hardware and software products as appropriate.	TS005.003 BS002.001 BS002.003
TRMM2010#Ir1	test	The ECS MSFC DAAC shall ingest LIS data from SDPF.	TS004.005 TS005.001 TS005.003 BS002.001
TRMM2020#Ir1	test	The SDPF to the ECS MSFC DAAC data stream shall include Level 0 and quick-look data sets.	TS005.001 TS005.003 BS002.001
TRMM2030#Ir1	test	The SDPF Level 0 and quick-look data sets for LIS shall contain quality and accounting information.	
TRMM2190#Ir1	test	The ECS MSFC DAAC shall ingest predicted orbit data from the SDPF.	TS004.005 TS005.003 BS002.001
TRMM2200#Ir1	test	ECS MSFC DAAC shall ingest definitive orbit data from the SDPF.	TS005.003 BS002.001 TS004.005
TRMM2220#Ir1	inspection	The LIS science team and instrument team shall define the ancillary, correlative, and flight dynamics data and algorithms needed for their processing.	TC017.001
TRMM2230#Ir1	inspection	The LIS instrument team and science team shall provide the quick-look data processing algorithms and quick-look operations concept needed for LIS.	TC017.001
TRMM2270#Ir1	test	ECS shall be able to accept LIS simulated data from SDPF.	TS004.005 TS005.001 TS005.003 BS002.001
TRMM2280#Ir1	inspection	The interfaces between TRMM and ECS shall make appropriate use of standards for data structures and data transport as defined for use within the publications of CCSDS and ISO/OSI, and shall use COTS hardware and software products as appropriate.	TS005.001 TS005.002 TS005.003 TS005.004 BS002.001 BS002.002
TRMM3010#Ir1	test	The ECS MSFC DAAC shall ingest Level 1A data for PR and TMI from TSDIS.	TS004.006 TS005.002 TS005.004 BS002.002

req't_id	verif_method	text	test_id
TRMM3020#Ir1	test	The ECS MSFC DAAC shall ingest TRMM standard products (Level 1B-3B) for PR, and TMI from TSDIS.	TS004.006 TS005.004 BS002.002
TRMM3030#Ir1	test	The ECS MSFC DAAC shall ingest TRMM browse products for PR and TMI from TSDIS.	TS004.006 TS005.004 BS002.002
TRMM3040#Ir1	test	The ECS MSFC DAAC shall ingest algorithms and documentation for PR and TMI from TSDIS.	TS004.006 TS005.004 BS002.002
TRMM3050#Ir1	test	The ECS MSFC DAAC shall ingest TRMM Ground Validation (GV) data products and associated metadata from TSDIS.	TS004.006 TS005.004 BS002.002
TRMM3100#Ir1	test	ECS shall make daily deliveries of an average of 2-days worth of archived TRMM PR, TM1, GV, and SSM/I ancillary data to TSDIS for the purpose of reprocessing by TSDIS.	TS006.001 TS006.002 TS006.003 TS006.004
TRMM3120#Ir1	demo	Communications between TSDIS and the ECS MSFC DAAC to transport the PR, TMI, and GV Level 1A data, Level 1B-3B standard products, metadata, SSM/I ancillary data, algorithms, and documentation shall be provided by ESDIS.	TS005.002 TS005.004 BS002.002 BS002.005
TRMM3140#Ir1	inspection	The interfaces between TRMM and ECS shall make appropriate use of standards for data structures and data transport as defined for use within the publications of CCSDS and ISO/OSI, and shall use COTS hardware and software products as appropriate.	TS005.001 TS005.002 TS005.003 TS005.004 BS002.001 BS002.002
TRMM4010#Ir1	test	The ECS GSFC DAAC shall ingest Level 1A data for VIRS from TSDIS.	TS004.006 TS005.002 TS005.004 BS002.002
TRMM4020#Ir1	test	The ECS GSFC DAAC shall ingest TRMM standard products Level 1B-3B for VIRS from TSDIS.	TS004.006 TS005.004 BS002.002
TRMM4030#Ir1	test	The ECS GSFC DAAC shall ingest TRMM browse products for VIRS from TSDIS.	TS004.006 TS005.004 BS002.002
TRMM4040#Ir1	test	The ECS GSFC DAAC shall ingest from TSDIS algorithms and documentation for VIRS.	TS004.006 TS004.008 TS005.004 BS002.002 BS002.004
TRMM4090#Ir1	test	ECS shall make daily deliveries of an average of 2-days worth of archived TRMM VITS, GOES, Precipitation Index (GPI), and National Meteorological Center (NMC) ancillary data to TSDIS for the purpose of reprocessing by TSDIS.	TS006.001 TS006.002 TS006.003 TS006.004

req't_id	verif_method	text	test_id
TRMM4110#Ir1	demo	Communications between TSDIS and the ECS GSFC DAAC to transport the VIRS Level 1A data, Level 1B-3B standard products, metadata, AVHRR, GPI, GPCP, and NMC ancillary data, and algorithms and documentation shall be provided by ESDIS.	TS005.002 TS005.004 BS002.002 BS002.005
TRMM4120#Ir1	test	TSDIS and ECS shall each provide an interface to the GSFC local area network.	TS005.002
TRMM4140#Ir1	inspection	The interfaces between TRMM and ECS shall make appropriate use of standards for data structures and data transport as defined for use within the publications of CCSDS and ISO/OSI, and shall use COTS hardware and software products as appropriate.	TS005.001 TS005.002 TS005.003 TS005.004 BS002.001 BS002.002
TRMM5010#Ir1	test	ECS shall ingest TRMM metadata, and browse from TSDIS along with the TRMM standard products in the ECS format.	TS004.006 TS005.004 BS002.002
TRMM5030#Ir1	test	ECS shall have the capability to ingest directory and guide information from TSDIS.	TS005.002 TS005.004 BS002.002

The following matrix provides the mapping of each test case to requirements.

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.1.1	TC017.001	C-HRD-11115 C-HRD-11300 C-HRD-12115 C-HRD-12300 C-HRD-18000 C-HRD-18005 C-HRD-21115 C-HRD-21300 C-HRD-23115 C-HRD-23300 C-HRD-28000 C-HRD-32000 C-HRD-32010 C-HRD-41000 C-HRD-41005 C-HRD-41010 C-HRD-41015 C-HRD-41020 C-HRD-41025 C-HRD-41500 C-HRD-42000 C-HRD-44000 C-HRD-45000 C-HRD-46000 C-MSS-10410 C-MSS-70520 S-DPS-42720 S-DPS-60710 S-DPS-60750 S-DPS-60760 S-DPS-60780 S-DPS-60790 S-DPS-60910 S-DPS-60930 S-DPS-61171 S-DPS-61172 S-DPS-61175 S-DPS-61177 PGS-0940#Ir1 S-DPS-60740 S-DPS-70010 S-DPS-70030 S-DPS-70230

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.1.1 (cont.)	TC017.001	S-DPS-70070 S-DPS-70110 S-DPS-70120 S-DPS-70130 S-DPS-70140 S-DPS-70150 S-DPS-70160 S-DPS-70180 S-DPS-70183 S-DPS-70190 S-DPS-70220 S-DPS-70240 S-DPS-70250 S-DPS-70260 S-DPS-70310 S-DPS-70710 S-DPS-70740 S-DPS-70750 S-DPS-70760 S-DPS-70780 S-DPS-70790 S-INS-60430 S-INS-60510 S-INS-60540 S-INS-60550 S-INS-60560 S-INS-60580 S-INS-60590 S-INS-60650 S-INS-60810 S-INS-60820 S-INS-60830 S-INS-60840 S-INS-60850 S-INS-60860 S-INS-60870 S-INS-60880 S-INS-60890 S-INS-60895 EOSD0510#Ir1 EOSD0730#Ir1 EOSD5020#Ir1 ESN-1350#Ir1 SCF-0001#Ir1 SCF-0010#Ir1 SCF-0030#Ir1 SMC-2505#Ir1 TRMM1230#Ir1 TRMM1240#Ir1 TRMM2220#Ir1 TRMM2230#Ir1 C-CSS-62000

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.1.2	TC003.001	C-MSS-70130 C-MSS-70300 C-CSS-00500 C-CSS-63000 C-CSS-63010 C-CSS-63020 C-CSS-63040 SMC-5325#Ir1 SMC-5330#Ir1 SMC-5335#Ir1 ESN-0010#Ir1
4.1.3	TC003.002	C-MSS-70120 SMC-5325#Ir1 SMC-5330#Ir1 SMC-5335#Ir1 SMC-5365#Ir1 ESN-0010#Ir1
4.1.4	TC003.003	C-MSS-70120 C-MSS-70300
4.1.5	TC003.004	C-MSS-70120 C-MSS-70300
4.1.6	TC003.005	C-CSS-21000 C-CSS-21020 C-CSS-21030 C-CSS-21100 C-MSS-70010 C-MSS-70020 C-MSS-70100 C-MSS-70120 C-MSS-70130 C-MSS-70300 C-MSS-70700
4.1.7	TC003.006	C-MSS-70120
4.1.8	TC003.007	ESN-0010#Ir1
4.1.9	TC003.008	ESN-0010#Ir1
4.1.10	B01.01.01	EOSD0500#Ir1 ESN-0003#Ir1 ESN-0010#Ir1 ESN-0370#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.1.11	B01.01.02	EOSD0500#Ir1 ESN-0003#Ir1 ESN-0006#Ir1 ESN-0010#Ir1 ESN-0370#Ir1
4.1.12	B01.01.03	EOSD0500#Ir1 ESN-0003#Ir1 ESN-0006#Ir1 ESN-0010#Ir1 ESN-0370#Ir1
4.1.13	TC011.001	C-CSS-00500
4.1.14	TC011.002	C-CSS-00500
4.1.15	B01.02.01	ESN-0010#Ir1
4.1.16	B01.02.02	ESN-0010#Ir1
4.1.17	T01-02.02.01	ESN-0003#Ir1
4.1.18	BC002.001	no explicit requirements - basic demo of gateway interface
4.2.1	TS002.014	SDPS-0090#Ir1
4.2.2	BC012.004	C-CSS-62010 C-CSS-62030 C-CSS-62040 C-CSS-62100 C-CSS-62120 C-CSS-62300 C-CSS-62305 C-CSS-62310 C-CSS-62320 C-CSS-62330 C-CSS-62340 C-CSS-62350 C-CSS-62360 C-CSS-62380

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.2.3	TC006.002	C-CSS-61040 C-CSS-61050 C-CSS-61060 S-DPS-42710 ESN-0010#Ir1 ESN-1170#Ir1
4.2.4	TC010.001	C-CSS-61040 C-CSS-61050 C-CSS-61060 C-ISS-01080
4.2.5	T01-02.05.01	C-CSS-61040 C-CSS-61050 C-CSS-61060 ESN-1170#Ir1
4.2.6	T01-02.05.02	C-CSS-61040 C-CSS-61050 C-CSS-61060 ESN-1170#Ir1
4.2.7	TC010.002	C-CSS-61040 C-CSS-61050 C-CSS-61060
4.2.8	T01-02.05.04	C-CSS-61040 C-CSS-61050 C-CSS-61060 ESN-1170#Ir1
4.2.9	TC010.003	C-CSS-61040 C-CSS-61050 C-CSS-61060 C-ISS-01010
4.2.10	T01-02.05.05	C-CSS-61040 C-CSS-61050 C-CSS-61060 ESN-1170#Ir1
4.2.11	TC006.001	C-CSS-61040 C-CSS-61050 C-CSS-61060
4.2.12	B01.05.01	C-CSS-61040 C-CSS-61050 C-CSS-61060
4.2.13	B01.05.02	C-CSS-61040 C-CSS-61050 C-CSS-61060

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.2.14	TC009.001	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1 SCF-0040#Ir1 SCF-0050#Ir1 SCF-0060#Ir1 SCF-0070#Ir1 SCF-0100#Ir1 SCF-0110#Ir1 SCF-0120#Ir1 SCF-0330#Ir1
4.2.15	T01-02.04.01	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-0010#Ir1 ESN-1170#Ir1
4.2.16	T01-02.04.02	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.2.17	T01-02.04.03	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1
4.2.18	T01-02.04.04	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1
4.2.19	T01-02.04.05	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1
4.2.20	T01-02.04.06	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.2.21	T01-02.04.07	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1
4.2.22	T01-02.04.08	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1
4.2.23	TC009.003	C-CSS-60650 ESN-1170#Ir1 SCF-0040#Ir1 SCF-0050#Ir1 SCF-0100#Ir1 SCF-0110#Ir1 SCF-0120#Ir1 SCF-0330#Ir1
4.2.24	TC009.004	C-CSS-00500 C-CSS-60610 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1 SCF-0040#Ir1 SCF-0050#Ir1 SCF-0060#Ir1 SCF-0070#Ir1 SCF-0100#Ir1 SCF-0110#Ir1 SCF-0120#Ir1 SCF-0330#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.2.25	BC002.003	C-ISS-02010
4.2.26	B01.07.01	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1
4.2.27	B01.07.02	C-CSS-60500 C-CSS-60510 C-CSS-60520 C-CSS-60600 C-CSS-60610 C-CSS-60620 C-CSS-60630 C-CSS-60640 ESN-0280#Ir1 ESN-0290#Ir1 ESN-1170#Ir1
4.2.28	T01-02.05.07	ESN-0003#Ir1 ESN-1180#Ir1 ESN-1340#Ir1 PGS-0430#Ir1
4.3.1	TC004.001	No Explicit Requirements - Basic Demo of DCE DNS
4.3.2	TC004.002	No Explicit Requirements - Basic Demo of DCE DNS

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.3.3	TC004.003	No Explicit Requirements - Basic Demo of DCE DNS
4.3.4	TC005.001	No Explicit Requirements - Basic Demo of DCE DNS
4.3.5	TC005.002	No Explicit Requirements - Basic Demo of DCE DNS
4.3.6	TC005.003	No Explicit Requirements - Basic Demo of DCE DNS
4.3.7	TC005.004	No Explicit Requirements - Basic Demo of DCE DNS
4.3.8	TC005.005	No Explicit Requirements - Basic Demo of DCE DNS
4.3.9	TC013.003	C-CSS-00500 C-CSS-28000 C-CSS-28010 C-CSS-28020 C-CSS-28030 C-CSS-28040 C-CSS-28060 C-CSS-28070 C-CSS-28080 C-MSS-60190 C-MSS-66180 C-MSS-66250 C-MSS-66260 C-MSS-66270 C-MSS-66310 C-MSS-90150 C-MSS-90570 ESN-0840#Ir1 ESN-0900#Ir1 ESN-0910#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.3.10	TC013.004	C-CSS-28060 C-MSS-60190
4.3.11	TC013.005	C-MSS-16060 C-MSS-16070 C-MSS-60080 C-MSS-66170 C-MSS-66190 C-MSS-66200 C-MSS-66230 C-MSS-66240 C-MSS-66310 ESN-0650#Ir1 ESN-1060#Ir1 SMC-3370#Ir1 SMC-3375#Ir1
4.3.12	TC014.001	C-MSS-14010 C-MSS-14020 C-MSS-14030 C-MSS-14040 C-MSS-16005 C-MSS-16020 C-MSS-20040 C-MSS-36010 C-MSS-60010 C-MSS-60620 C-MSS-60600 C-MSS-66000 C-MSS-66010 C-MSS-66120 C-MSS-66130 C-MSS-66170 C-MSS-68100 EOSD0780#Ir1 ESN-0210#Ir1 ESN-0620#Ir1 ESN-0640#Ir1 ESN-0650#Ir1 ESN-0800#Ir1 ESN-0830#Ir1 ESN-1070#Ir1 SMC-3300#Ir1 SMC-3305#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.3.13	TC014.002	C-MSS-12080 C-MSS-12090 C-MSS-16020 C-MSS-16050 C-MSS-16100 C-MSS-20010 C-MSS-20020 C-MSS-20030 C-MSS-36010 C-MSS-60020 C-MSS-60100 C-MSS-60120 C-MSS-60190 C-MSS-60370 C-MSS-60380 C-MSS-60500 C-MSS-66120 C-MSS-66170 C-MSS-70710 C-MSS-70720 ESN-0010#Ir1 ESN-0620#Ir1 ESN-0640#Ir1 ESN-0650#Ir1 ESN-0760#Ir1 ESN-0775#Ir1 ESN-0790#Ir1 ESN-0830#Ir1 ESN-0840#Ir1 ESN-0900#Ir1 ESN-0910#Ir1 SMC-3300#Ir1 SMC-3305#Ir1 SMC-3390#Ir1
4.3.14	TC014.003	ESN-0650#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.3.15	TC014.004	C-MSS-12005 C-MSS-12010 C-MSS-12020 C-MSS-12030 C-MSS-12040 C-MSS-12050 C-MSS-12060 C-MSS-12070 C-MSS-12100 C-MSS-12110 C-MSS-12130 C-MSS-12140 C-MSS-12180 C-MSS-68000 C-MSS-68010 C-MSS-68020 C-MSS-12120

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.3.16	TC014.005	C-MSS-20040 C-MSS-60600 C-MSS-66030 C-MSS-66040 C-MSS-66050 C-MSS-66060 C-MSS-66080 C-MSS-66100 C-MSS-66170 C-MSS-68100 ESN-0650#Ir1 ESN-0740#Ir1 ESN-0760#Ir1 ESN-1060#Ir1
4.3.17	TC014.006	C-MSS-12120 C-MSS-16030 C-MSS-16040 C-MSS-36010 C-MSS-36020 C-MSS-36040 C-MSS-36050 C-MSS-36060 C-MSS-36070
4.3.18	TS002.011	S-DPS-21400 S-DPS-41400 S-DPS-41410
4.3.19	BC016.003	S-DPS-41400 S-DPS-41410
4.3.20	T04-01.01.06	S-DPS-21400 SMC-3300#Ir1 SMC-3305#Ir1
4.3.21	T04-01.01.09	C-MSS-66000
4.3.22	T04-01.01.12	SMC-3300#Ir1 SMC-3305#Ir1
4.3.23	T04-01.01.18	SMC-3300#Ir1 SMC-3305#Ir1
4.3.24	T04-01.01.20	SMC-3300#Ir1 SMC-3305#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.3.25	T04-01.02.03	SMC-4305#Ir1
4.3.26	T04-01.05.01	EOSD1703#Ir1
4.3.27	T04-01.05.02	EOSD3200#Ir1
4.4.1	BC008.001	No Explicit Requirements - Basic Demo of DCE DNS
4.4.2	BC002.004	C-MSS-12080 C-MSS-16040 C-MSS-16070 C-MSS-60110 C-MSS-60130 C-MSS-60140 C-MSS-60150 C-MSS-60170 C-MSS-60200 C-MSS-60310 C-MSS-60340
4.4.3	T04-01.02.01	SMC-3380#Ir1 SMC-3395#Ir1 SMC-3415#Ir1 SMC-4320#Ir1 SMC-4325#Ir1 SMC-8840#Ir1 SMC-8880#Ir1
4.4.4	T04-01.02.02	SMC-3380#Ir1 SMC-3395#Ir1 SMC-3415#Ir1 SMC-4320#Ir1 SMC-4325#Ir1 SMC-8840#Ir1 SMC-8880#Ir1
4.4.5	T01-02.02.02	ESN-0003#Ir1
4.4.6	T01-02.02.03	ESN-0003#Ir1
4.4.7	T01-02.02.04	ESN-0003#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.4.8	BC002.002	C-CSS-00040 C-ISS-01000 C-ISS-02000 C-ISS-02010 C-ISS-02020 C-ISS-02030 C-ISS-02050 C-ISS-02060 C-ISS-02520 C-ISS-02530
4.5.1	TS002.002	S-DPS-40100 S-DPS-40110 C-MSS-91020 C-ISS-01020
4.5.2	TS002.003	S-DPS-40210 S-DPS-40320 S-DPS-40340
4.5.3	TS002.004	S-DPS-40230 S-DPS-40340
4.5.4	TS002.005	S-DPS-40200 S-DPS-40320 S-DPS-61173 S-DPS-40260 S-DPS-40295 S-DPS-61174
4.5.5	TS002.006	S-DPS-40250 S-DPS-40320
4.5.6	TS002.007	S-DPS-40280
4.5.7	TS002.010	S-DPS-40910 S-DPS-40920 S-DPS-40930 S-DPS-40940
4.5.8	TS002.012	C-MSS-91020 S-DPS-41500 S-DPS-41510 S-DPS-41520 S-DPS-41530 S-DPS-42740 S-DPS-42750 S-DPS-42760
4.5.9	TS002.015	S-DPS-42000 S-DPS-42010

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.5.10	TS002.016	S-DPS-41000 S-DPS-41005 S-DPS-41010 S-DPS-41015 S-DPS-41020 S-DPS-41030 S-DPS-41035 S-DPS-41040 S-DPS-70270 S-DPS-70280 S-DPS-41050
4.5.11	T03-01.05.01	C-MSS-40400 C-MSS-40410 C-MSS-40420 C-MSS-40510 C-MSS-40470 C-MSS-40480 C-MSS-40490 C-MSS-40570 C-MSS-40990 C-MSS-40995 PGS-0640#Ir1 PGS-0950#Ir1 SMC-2510#Ir1 SMC-2515#Ir1 DADS0190#Ir1
4.5.12	T03-01.05.02	C-MSS-40400 C-MSS-40410 C-MSS-40420 C-MSS-40510 C-MSS-40570 C-MSS-40990 C-MSS-40995 C-MSS-40470 C-MSS-40480 C-MSS-40490 SMC-2510#Ir1 SMC-2515#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.5.13	T03-01.05.03	C-MSS-40400 C-MSS-40410 C-MSS-40420 C-MSS-40470 C-MSS-40470 C-MSS-40480 C-MSS-40510 C-MSS-40560 C-MSS-40570 C-MSS-40990 C-MSS-40995 C-MSS-40490 SMC-2510#Ir1 SMC-2515#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.5.14	T03-01.05.04	C-MSS-40400 C-MSS-40410 C-MSS-40420 C-MSS-40510 C-MSS-40470 C-MSS-40480 C-MSS-40490 C-MSS-40570 C-MSS-40990 C-MSS-40995 SMC-2510#Ir1 SMC-2515#Ir1
4.5.15	T03-01.05.05	C-MSS-40400 C-MSS-40410 C-MSS-40420 C-MSS-40510 C-MSS-40470 C-MSS-40480 C-MSS-40490 C-MSS-40500 C-MSS-40550 C-MSS-40560 C-MSS-40570 C-MSS-40990 C-MSS-40995 SMC-2510#Ir1 SMC-2515#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.5.16	T03-01.05.06	C-MSS-40400 C-MSS-40470 C-MSS-40480 C-MSS-40490 PGS-0640#Ir1 PGS-0950#Ir1 SMC-2510#Ir1 SMC-2515#Ir1
4.5.17	T03-01.06.01	C-MSS-40400 C-MSS-40470 C-MSS-40480 PGS-1220#Ir1
4.5.18	T03-01.08.01	EOSD0502#Ir1 PGS-0920#Ir1 PGS-1015#Ir1 PGS-1020#Ir1 PGS-1030#Ir1
4.5.19	T03-01.08.02	EOSD0502#Ir1 PGS-1020#Ir1 PGS-1030#Ir1
4.5.20	T03-01.08.03	EOSD0502#Ir1 PGS-0920#Ir1 PGS-1015#Ir1 PGS-1020#Ir1 PGS-1030#Ir1
4.6.1	TS001.001	PGS-0920#Ir1 PGS-0925#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.6.2	TS001.002	PGS-0920#Ir1 PGS-0925#Ir1 PGS-0940#Ir1 PGS-0970#Ir1 PGS-1015#Ir1 EOSD0502#Ir1
4.6.3	TS001.003	PGS-0920#Ir1 PGS-0925#Ir1 PGS-0970#Ir1 PGS-1015#Ir1
4.6.4	B03.04.01	S-DPS-40400 S-DPS-40405 S-DPS-40430 EOSD0502#Ir1 PGS-0920#Ir1 PGS-0925#Ir1 PGS-1000#Ir1
4.6.5	B03.04.02	
4.6.6	B03.05.01	S-DPS-40400 S-DPS-40405 S-DPS-40430 EOSD0502#Ir1 PGS-0920#Ir1 PGS-0925#Ir1 PGS-1000#Ir1
4.6.7	B03.05.02	
4.6.8	T03-01.07.01	S-DPS-40200 S-DPS-40210

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.6.9	T03-01.07.02	S-DPS-40200 S-DPS-40210
4.6.10	T03-01.07.05	S-DPS-40280 S-DPS-40295
4.6.11	T03-01.07.06	S-DPS-40280 S-DPS-40295
4.7.1	TS003.008	C-ISS-01020 S-DPS-61170
4.7.2	TS003.006	S-DPS-61120 S-DPS-61110 S-DPS-61140 S-DPS-61150 S-DPS-61160 S-DPS-61130
4.7.3	TS003.005	S-DPS-60080 S-DPS-70060 S-INS-60150 S-INS-60190
4.7.4	TS003.004	S-DPS-60050 S-DPS-60970
4.7.5	B03.06.02	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0370#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.7.6	B03.06.03	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.7.7	B03.06.04	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.7.8	B03.06.05	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.7.9	B03.06.06	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.7.10	B03.06.07	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.7.11	B03.06.08	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.7.12	B03.06.09	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.7.13	B03.06.10	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.7.14	B03.07.01	PGS-0360#Ir1 S-DPS-60120 PGS-0370#Ir1 SMC-3300#Ir1 SMC-3305#Ir1 SMC-4310#Ir1 SMC-4311#Ir1 SMC-4315#Ir1
4.7.15	B03.07.02	PGS-0360#Ir1 SMC-3300#Ir1 SMC-3305#Ir1 SMC-4310#Ir1 SMC-4311#Ir1 SMC-4315#Ir1
4.7.16	B03.07.03	PGS-0360#Ir1 SMC-3300#Ir1 SMC-3305#Ir1 SMC-4310#Ir1 SMC-4311#Ir1 SMC-4315#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.7.17	B03.06.12	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0360#Ir1 PGS-0370#Ir1 PGS-0980#Ir1
4.7.18	B03.06.11	EOSD0500#Ir1 PGS-0360#Ir1 PGS-0370#Ir1 PGS-0980#Ir1
4.8.1	BS001.001	S-DPS-40010 S-DPS-41895 S-DPS-42200 S-DPS-42100 DADS0190#Ir1
4.8.2	BS001.002	S-DPS-42110 S-DPS-42120 S-DPS-42130 S-DPS-42140 S-DPS-42150 S-DPS-42160 S-DPS-42170 S-DPS-42175 S-DPS-42180 S-DPS-42190 S-DPS-42700 S-DPS-42770
4.8.3	BS001.003	S-DPS-42300 S-DPS-42305 S-DPS-42310 S-DPS-42315 S-DPS-42320 S-DPS-42325 S-DPS-42350 S-DPS-42360 S-DPS-42500 S-DPS-42780 S-DPS-42700

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.8.4	BS001.004	S-DPS-42370 S-DPS-42500 S-DPS-42510 S-DPS-42520 S-DPS-42530 S-DPS-42540 S-DPS-42550 S-DPS-42560 S-DPS-42570 S-DPS-42580 S-DPS-42590 S-DPS-42600 S-DPS-42610 S-DPS-42620 S-DPS-42640 S-DPS-42650 S-DPS-42660 S-DPS-42700 S-DPS-42790
4.8.5	B03.02.01	PGS-0400#Ir1 PGS-0950#Ir1 SDPS0010#Ir1
4.8.6	B03.03.01	PGS-0602#Ir1 PGS-0620#Ir1 PGS-0650#Ir1 PGS-1000#Ir1
4.8.7	B03.03.02	PGS-0602#Ir1 PGS-0620#Ir1 PGS-0650#Ir1 PGS-1000#Ir1
4.8.8	B03.03.03	PGS-0602#Ir1 PGS-0620#Ir1 PGS-0650#Ir1 PGS-1000#Ir1
4.8.9	B03.06.01	EOSD0500#Ir1 EOSD0502#Ir1 PGS-0270#Ir1 PGS-0360#Ir1 PGS-0370#Ir1 PGS-0980#Ir1 PGS-0990#Ir1 PGS-1000#Ir1 PGS-1010#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.8.10	B03.07.04	PGS-0360#Ir1 SMC-3300#Ir1 SMC-3305#Ir1 SMC-4310#Ir1 SMC-4311#Ir1 SMC-4315#Ir1
4.8.11	B03.08.01	PGS-0910#Ir1 PGS-0920#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.8.12	B03.08.02	PGS-0910#Ir1 PGS-0920#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.8.13	B03.09.01	PGS-0900#Ir1 PGS-0910#Ir1 PGS-0920#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.8.14	B03.09.02	PGS-0900#Ir1 PGS-0910#Ir1 PGS-0920#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.8.15	B03.09.03	PGS-0900#Ir1 PGS-0910#Ir1 PGS-0920#Ir1 PGS-0990#Ir1 PGS-1000#Ir1
4.8.16	B03.12.03	PGS-1025#Ir1
4.8.17	B03.13.01	C-MSS-91020 EOSD1750#Ir1 EOSD1760#Ir1 PGS-0860#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.8.18	B03.13.02	S-DPS-60610 EOSD1750#Ir1 EOSD1760#Ir1 PGS-0860#Ir1
4.8.19	B03.14.02	S-DPS-60330 ESN-0070#Ir1 PGS-1315#Ir1
4.8.20	B03.13.03	S-DPS-60330 PGS-1315#Ir1
4.8.21	T03-01.01.01	C-MSS-40540 SMC-2510#Ir1 SMC-2515#Ir1
4.8.22	T03-01.02.01	C-MSS-40540 SMC-2510#Ir1 SMC-2515#Ir1
4.8.23	T03-01.04.02	EOSD1750#Ir1 SMC-2510#Ir1 SMC-2515#Ir1
4.8.24	T03-01.09.01	EOSD0502#Ir1 PGS-0610#Ir1 PGS-1015#Ir1
4.8.25	T03-01.09.02	EOSD0502#Ir1 PGS-0610#Ir1 PGS-1015#Ir1
4.8.26	T03-01.09.03	EOSD0502#Ir1 PGS-0610#Ir1 PGS-1015#Ir1
4.8.27	BS001.005	SCF-0080#Ir1
4.9.1	TS004.001	C-CSS-21000 S-INS-00030 S-INS-00040 SMC-5320#Ir1
4.9.2	TS004.003	C-CSS-21000 S-INS-00030 S-INS-00040 SMC-5320#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.9.3	TS004.005	S-INS-00010 DADS0130#Ir1 DADS0170#Ir1 SDPS0020#Ir1 SDPS0110#Ir1 TRMM1010#Ir1 TRMM1200#Ir1 TRMM1210#Ir1 TRMM1280#Ir1 TRMM2010#Ir1 TRMM2190#Ir1 TRMM2200#Ir1 TRMM2270#Ir1
4.9.4	TS004.007	SDPF does not use the expiration time PVL keyword
4.9.5	TS005.001	C-CSS-60520 C-ISS-01030 C-ISS-01040 S-INS-00415 S-INS-00520 S-INS-00540 DADS0250#Ir1 EOSD1607#Ir1 NI-0400#Ir1 SCF-0060#Ir1 SCF-0070#Ir1 SDPS0110#Ir1 TRMM1010#Ir1 TRMM1020#Ir1 TRMM1030#Ir1 TRMM1060#Ir1 TRMM1280#Ir1 TRMM2010#Ir1 TRMM2020#Ir1 TRMM2030#Ir1 TRMM2270#Ir1 TRMM2280#Ir1 TRMM3140#Ir1 TRMM4140#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.9.6	TS005.003	C-CSS-60520 C-ISS-01030 C-ISS-01040 S-INS-00415 S-INS-00520 S-INS-00540 DADS0130#Ir1 DADS0250#Ir1 EOSD1607#Ir1 EOSD1608#Ir1 NI-0400#Ir1 SCF-0060#Ir1 SCF-0070#Ir1 SDPS0110#Ir1 TRMM1010#Ir1 TRMM1020#Ir1 TRMM1030#Ir1 TRMM1060#Ir1 TRMM1200#Ir1 TRMM1210#Ir1 TRMM1280#Ir1 TRMM1290#Ir1 TRMM2010#Ir1 TRMM2020#Ir1 TRMM2030#Ir1 TRMM2190#Ir1 TRMM2200#Ir1 TRMM2270#Ir1 TRMM2280#Ir1 TRMM3140#Ir1 TRMM4140#Ir1
4.10.1	TS004.002	C-CSS-21000 S-INS-00030 S-INS-00040 SMC-5320#Ir1
4.10.2	TS004.004	C-CSS-21000 S-INS-00030 S-INS-00040 SMC-5320#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.10.3	TS004.006	DADS0170#Ir1 TRMM3010#Ir1 TRMM3020#Ir1 TRMM3030#Ir1 TRMM3040#Ir1 TRMM3050#Ir1 TRMM4010#Ir1 TRMM4020#Ir1 TRMM4030#Ir1 TRMM5010#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.10.4	TS004.008	S-INS-00020
4.10.5	TS005.002	C-CSS-60520 C-ISS-01100 S-INS-00415 S-INS-00560 S-INS-00570 DADS0170#Ir1 DADS0250#Ir1 EOSD1607#Ir1 EOSD1608#Ir1 SCF-0060#Ir1 SCF-0070#Ir1 TRMM2280#Ir1 TRMM3010#Ir1 TRMM3120#Ir1 TRMM3140#Ir1 TRMM4010#Ir1 TRMM4040#Ir1 TRMM4110#Ir1 TRMM4120#Ir1 TRMM4140#Ir1 TRMM5030#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.10.6	TS005.004	C-CSS-60520 C-ISS-01100 S-INS-00415 S-INS-00560 S-INS-00570 DADS0170#Ir1 DADS0250#Ir1 EOSD1607#Ir1 EOSD1608#Ir1 SCF-0060#Ir1 SCF-0070#Ir1 TRMM2280#Ir1 TRMM3010#Ir1 TRMM3020#Ir1 TRMM3030#Ir1 TRMM3040#Ir1 TRMM3050#Ir1 TRMM3120#Ir1 TRMM3140#Ir1 TRMM4010#Ir1 TRMM4020#Ir1 TRMM4030#Ir1 TRMM4040#Ir1 TRMM4110#Ir1 TRMM4140#Ir1 TRMM5010#Ir1 TRMM5030#Ir1
4.11.1	TS006.001	S-DSS-00020 S-DSS-00060 S-DSS-01400 S-DSS-01405 S-DSS-01430 S-DSS-01760 DADS2450#Ir1 TRMM3100#Ir1 TRMM4090#Ir1
4.11.2	TS006.002	DADS2450#Ir1 S-DSS-00020 S-DSS-00060 S-DSS-00095 S-DSS-01400 S-DSS-01405 S-DSS-01430 S-DSS-01760 TRMM3100#Ir1 TRMM4090#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.11.3	TS006.003	DADS2450#Ir1 S-DSS-00010 S-DSS-01070 S-DSS-01405 S-DSS-01760 TRMM3100#Ir1 TRMM4090#Ir1
4.11.4	TS006.004	DADS2450#Ir1 S-DSS-00010 S-DSS-01070 S-DSS-01405 S-DSS-01760 TRMM3100#Ir1 TRMM4090#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.12.1	BS002.001	C-CSS-21000 C-CSS-60520 C-ISS-01030 C-ISS-01040 S-INS-00010 S-INS-00040 S-INS-00064 S-INS-00415 S-INS-00520 S-INS-00540 DADS0130#Ir1 DADS0170#Ir1 DADS0250#Ir1 EOSD1607#Ir1 EOSD1608#Ir1 NI-0400#Ir1 SCF-0060#Ir1 SCF-0070#Ir1 SDPS0010#Ir1 SDPS0020#Ir1 SDPS0110#Ir1 SMC-5320#Ir1 TRMM1010#Ir1 TRMM1060#Ir1 TRMM1200#Ir1 TRMM1210#Ir1 TRMM1280#Ir1 TRMM1290#Ir1 TRMM2010#Ir1 TRMM2020#Ir1 TRMM2030#Ir1 TRMM2190#Ir1 TRMM2200#Ir1 TRMM2270#Ir1 TRMM2280#Ir1 TRMM3140#Ir1 TRMM4140#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.12.2	BS002.002	C-CSS-21000 C-CSS-60520 C-ISS-01100 S-INS-00010 S-INS-00040 S-INS-00064 S-INS-00415 S-INS-00560 S-INS-00570 DADS0170#Ir1 DADS0250#Ir1 EOSD1607#Ir1 EOSD1608#Ir1 SCF-0060#Ir1 SCF-0070#Ir1 SMC-5320#Ir1 TRMM2280#Ir1 TRMM3010#Ir1 TRMM3020#Ir1 TRMM3030#Ir1 TRMM3040#Ir1 TRMM3050#Ir1 TRMM3120#Ir1 TRMM3140#Ir1 TRMM4010#Ir1 TRMM4020#Ir1 TRMM4030#Ir1 TRMM4040#Ir1 TRMM4110#Ir1 TRMM4140#Ir1 TRMM5010#Ir1 TRMM5030#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.12.3	BS002.003	S-INS-00060 S-INS-00062 SDPS0080#Ir1 DADS1070#Ir1 DADS1380#Ir1 DADS1400#Ir1 SDPS0110#Ir1 TRMM1080#Ir1 TRMM1290#Ir1
4.12.4	BS002.004	S-INS-00060 S-INS-00062 SDPS0080#Ir1 DADS1070#Ir1 DADS1380#Ir1 DADS1400#Ir1
4.12.5	BS002.005	C-CSS-60520 S-INS-00100 S-INS-00415 S-INS-00630 S-INS-00640 S-INS-00620 S-INS-00110 DADS0145#Ir1 DADS0250#Ir1 DADS0260#Ir1 EOSD1710#Ir1 SDPS0020#Ir1 TRMM3120#Ir1 TRMM4110#Ir1

Plan_Paragraph_ID	Test_ID	Paragraph_ID
4.13.1	T03-01.01.01	SMC-2510#Ir1 SMC-2515#Ir1
4.13.2	T03-01.02.01	SMC-2510#Ir1 SMC-2515#Ir1
4.13.3	T03-01.04.02	C-MSS-40540 EOSD1750#Ir1 SMC-2510#Ir1 SMC-2515#Ir1
4.13.4	B03.10.01	PGS-0490#Ir1
4.13.5	B03.10.02	PGS-0490#Ir1
4.13.6	B03.10.03	PGS-0490#Ir1
4.13.7	B03.10.04	PGS-0490#Ir1
4.13.8	B03.10.05	PGS-0490#Ir1
4.13.9	B03.10.06	PGS-0490#Ir1
4.13.10	B03.10.07	PGS-0490#Ir1
4.13.11	B03.11.01	SMC-3300#Ir1 SMC-3305#Ir1
4.13.12	B03.11.02	SMC-3300#Ir1 SMC-3305#Ir1
4.13.13	B03.11.03	SMC-3300#Ir1 SMC-3305#Ir1
4.13.14	B03.11.04	SMC-3300#Ir1 SMC-3305#Ir1

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Appendix D. Rationale Matrix for Unused PDR Test Cases

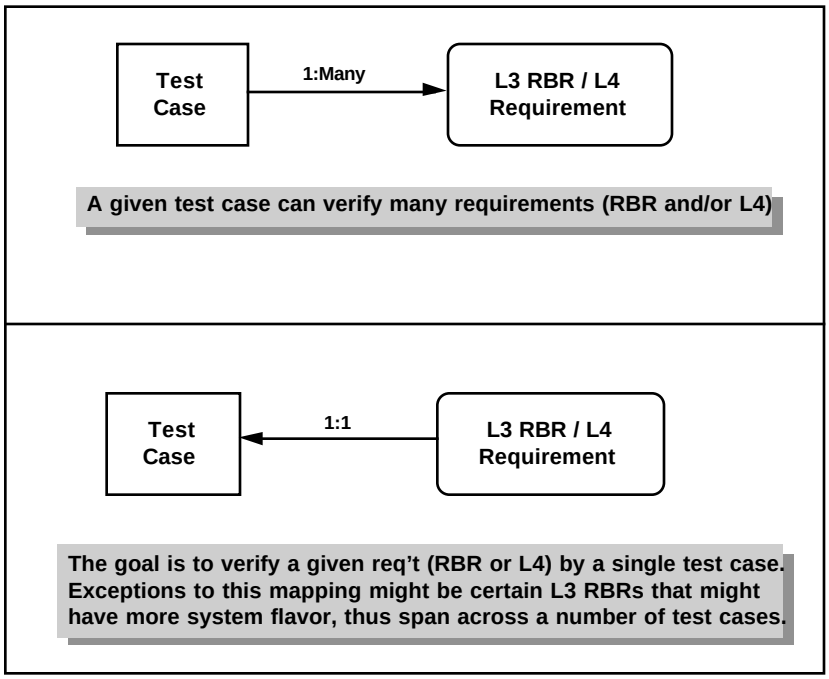

Figure D-1. Test Case to Requirement Mappings in RTM

The following matrix provides a rationale for each testcase as described in the Integration and Test Plan for CSMS, SDPS and System. These Integration and Test Plans were prepared for the PDR review.

Test Case ID	Test Case Name	Rationale
TS002.001	Science Software (Algorithm) Delivery Verification Test	Already covered in BS001.002
TS002.008	Code Standard Checking - Extract Required Header Data Test	Not a requirement in Ir1
TS002.009	Development Environment Test	Not a requirement for Ir1
TS002.011	Configuration Management Thread	Merging test case with BC016.003
TS002.013	Operating System and Utilities Test	Not a requirement for Ir1
TS003.002	Process Queue	Merging test case with B03.06.01
TS003.003	PGE Execution	Merging test case with B03.06.01
TS003.007	Science Processing Development Environment Test	Merging test case with B03.04.01 and B03.05.01
BS001.001	Ingestion of Delivery Package	Merging B03.01.01, B03.01.02, and TC009.002 into test case
BS001.002	Evaluation, Inspection and Verification of the Science Software Delivery	Merging B03.01.01 and B03.01.03 into test case
TS004.005	SDPF Valid Data Availability Notice Verification Test	Merging B02.02.01, B02.04.01, and B02.05.01 into test case
TS004.006	TSDIS Valid Data Availability Notice Verification Test	Merging B02.02.01, B02.04.01, and B02.05.01 into test case
TS005.001	SDPF FTP-GET Single File Data Ingest Test	Merging B02.04.03, B02.05.03, T02-02.01.01, T02-02.01.03, T02-02.01.07, T02-02.01.09, T02-02.01.11, and T02-02.01.13 into test case
TS005.002	TSDIS FTP-GET Single File Data Ingest Test	Merging B02.04.03, B02.05.03, T02-01.01.02, and T02-01.01.03 into test case
TS005.003	SDPF FTP-Get and Multiple File Ingest Test	Merging B02.04.03, B02.05.03, T02-02.01.01, T02-02.01.03, T02-02.01.07, T02-02.01.09, T02-02.01.11, and T02-02.01.13 into test case
TS005.004	TSDIS FTP-Get and Multiple File Ingest Test	Merging B02.04.03, B02.05.03, T02-01.01.02, and T02-01.01.03 into test case

Test Case ID	Test Case Name	Rationale
TS005.005	NESDIS and GDAO Polling Test	Duplicate of BS002.005
BS002.001	SDPF FTP-Get File Validation And Ingest Test	Merging B02.01.01 and B02.02.03 into test case
BS002.002	TSDIS FTP-Get File Validation and Ingest Test	Merging B02.01.01 and B02.02.03 into test case
BS002.003	SDPF Reporting Test	Merging B02.01.02, T02-02.01.02, T02-02.01.04, T02-02.01.08, T02-02.01.10, T02-02.01.12, and T02-02.01.14 into test case
BS002.004	TSDIS Status Reporting Test	Merging B02.01.02 into test case
BS002.005	NESDIS and GDAO Polling Ingest Test	Merging B02.01.01 into test case
TC001.001	Interface Tests	Merging test case with BC002.001 and BC002.002. Requirements also covered in TS005.001, TS005.002, TS005.003, TS005.004, BS002.001, BS002.002, and BS002.005.
BC002.001	External Interfaces Integration Test	Merging TC001.001 into test case
BC002.002	Internetworking Test	Merging TC001.001 into test case
TC007.001	Synchronous (with reply)	Functionality moved to Release A
TC007.002	Synchronous (without reply)	Functionality moved to Release A
TC009.002	SCF Algorithm and Test	Merging test case with BS001.001
TC010.004	Basic E-Mail	Already covered in test case TC006.002
BC012.001	Internetworking	Already covered in test case BC002.002
BC012.002	DCE Functionality	Already covered in BC008.001
BC012.003	Messaging	Already covered in test cases TC010.001, TC010.002, and TC010.003
TC013.001	History Log	Merging test case with TC013.003. This test provides the input logs to TC013.003.
TC013.002	Contents	Merging test case with TC013.003. This test provides the verification of the input logs to TC013.003.
TC013.003	DBMS Interface	Merging TC013.001 and TC013.002 into test case
TC013.005	Performance Monitoring Thresholds	Merging T04-01.01.21, T04-01.01.22, and T04-01.01.23 into test case
TC014.001	Basic Monitoring	Merging T04-01.01.01, T04-01.01.02, T04-01.01.03, T04-01.01.04, T04-01.01.13, T04-01.01.14, T04-01.01.15, T04-01.01.16, B04.03.01, B04.03.02, B04.03.03, B04.03.04, T04-01.03.01, T04-01.03.02, T04-01.03.03, and T04-01.03.04 into test case
TC014.002	OpenView	Merging T04-01.01.05, T04-01.01.07, T04-01.01.08, T04-01.01.10, T04-01.01.11, T04-01.01.17, T04-01.01.19, and BC016.001 into test case
TC014.003	Fault Indication	Merging T04-01.01.24 into test case
TC014.004	MUI Services	Keep MUI Services together, moved line from TC014.002 into test case ("Launch an Xterm from the MUI to establish a dialog session with the M&O staff")
TC015.001	Maintenance of Configurable Items	Merging test case with T03-01.05.01
TC015.002	Software Change Management	Merging test case with T03-01.05.04
TC015.003	Build Process Audit	Already covered in T03-01.04.02
BC016.001	Management Framework Scenario	Merging test case with TC014.002

Test Case ID	Test Case Name	Rationale
BC016.002	General CM	Merging test case with T03-01.05.01, T03-01.05.03, T03-01.05.04, T03-01.05.05, and T03-01.06.01
BC016.004	Remote OpenView	Merging test case with TC014.001
TC003.007	Server Authentication	New test case, as per Government's comments
TC003.008	Authentication Expiration	New test case, as per Government's comments
TS003.001	Manual Submittal of Data Processing Requests	Merging test case with B03.06.01
B01.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.01.04	Verification of History Log	Already covered in TC013.003
B01.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.02.03	Verification of History Log	Already covered in TC013.003
B01.03.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.03.01	Access Dev&Peripheral Defined to Grp	Merging test case with BC008.001. This test will support the General DCE demo.
B01.03.02	Access Dev&Peripheral not Defined Grp	Merging test case with BC008.001. This test will support the General DCE demo.
B01.03.03	Directory Services(privileges allowed)	Merging test case with BC008.001. This test will support the General DCE demo.
B01.03.04	Dir Services(privileges not allowed)	Merging test case with BC008.001. This test will support the General DCE demo.
B01.04.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.04.01	Client Req Response from Server	Merging test case with TC009.004. This test will support the transfer of data using RPC pipes.
B01.04.02	Client does not Req Response from Server	Merging test case with TC009.004. This test will support the transfer of data using RPC pipes.
B01.05.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.05.01	Sending E-Mail Msg to Local&Remote Hosts	Merging test case with TC006.001. This test will support E-Mail capability.
B01.05.02	Receiving E-Mail Msg from Local&Remote	Merging test case with TC006.001. This test will support E-Mail capability.
B01.05.03	Verification of History Log	Already covered in TC013.003
B01.06.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.06.01	FTP Data File Locally	Already covered in TC009.001
B01.06.02	FTP Data File within WAN	Already covered in TC009.001
B01.06.03	RCP Data File through LAN	Already covered in TC009.001
B01.06.04	RCP Data File through WAN	Already covered in TC009.001
B01.06.05	Transfer of File Using RPC Pipes	Already covered in TC009.001
B01.06.06	Transfer of File through Dist Files Serv	Already covered in TC009.001
B01.06.07	Verification of History Log	Already covered in TC013.003

Test Case ID	Test Case Name	Rationale
B01.07.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.07.03	Verification of History Log	Already covered in TC013.003
B01.08.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.08.01	Accessing Hosts within LAN	Already covered in B01.07.02
B01.08.02	Accessing Hosts within WAN	Already covered in B01.07.01
B01.08.03	Verification of History Log File	Already covered in TC013.003
B01.09.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B01.09.04	Verification of History Log File	Already covered in TC013.003
B01.10.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.01.01	Successful Receipt and Validation	Merging test case with BS002.001, BS002.002, and BS002.005
B02.01.02	Unsuccessful Receipt and Validation	Merging test case with BS002.003 and BS002.004
B02.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.02.01	DAN Receipt and Acknowledgment	Merging test case with TS004.005 and TS004.006
B02.02.02	Data Driven Ingest	DAN with "push" is not a protocol used for any interface in Ir1
B02.02.03	Schedule Driven Ingest for Valid Data	Merging test case with BS002.001 and BS002.002
B02.03.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.03.01	Ingest for Valid Data	No requirement for this error checking in Ir1
B02.04.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.04.01	DAN Transfer via LAN	Merging test case with TS004.005 and TS004.006
B02.04.02	Data Driven Ingest via LAN	DAN with "push" is not a protocol used for any interface in Ir1
B02.04.03	Schedule Driven Ingest via LAN	Merging test case with TS005.001, TS005.002, TS005.003, and TS005.004
B02.05.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.05.01	DAN Transfer via WAN	Merging test case with TS004.005 and TS004.006
B02.05.02	Data Driven Ingest via WAN	DAN with "push" is not a protocol used for any interface in Ir1
B02.05.03	Schedule Driven Ingest via WAN	Merging test case with TS005.001, TS005.002, TS005.003, and TS005.004
B02.06.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.06.01	Gateway/Router Faults	Already covered in T04-01.01.08
B02.06.02	Sender Host Faults	Already covered in T04-01.01.05

Test Case ID	Test Case Name	Rationale
B02.06.03	Receiving Host Fault	Already covered in T04-01.01.01, T04-01.01.02, T04-01.01.03, and T04-01.01.04
B02.06.04	Ingest Application Fault	Already covered in T04-01.01.13, T04-01.01.14, T04-01.01.15, and T04-01.01.16
B02.07.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.07.01	Physical Electronic Media Ingest	Media ingest is not a requirement in Ir1
B02.07.02	Bad Physical Electronic Media	Media ingest is not a requirement in Ir1
B02.08.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B02.08.01	Performance	Ingest performance statistics gathering is not a requirement in Ir1
B02.08.02	Security	Ingest security statistics gathering is not a requirement in Ir1
B02.08.03	File Directory	File Directory management is not a requirement in Ir1
B02.08.04	Algorithm Storage (Staging Only)	Algorithm Storage is not a requirement in Ir1
B03.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.01.01	Successful Science SW Delivery Package	Merging test case with BS001.001 and BS001.002
B03.01.02	Invalid Science SW Delivery Pkg Requests	Merging test case with BS001.001
B03.01.03	Partial Science SW Delivery Pkg	Merging test case with BS001.002
B03.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.02.01	Algorithm Configuration Management	Merging CM part of TS002.011 into B03.02.01
B03.03.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.03.01	Algorithm in compliance w/ ECS Standards	Merging T03-01.07.03 into test case
B03.03.02	Algorithm Not in Compliance w/ ECS Stand	Merging T03-01.07.04 into test case
B03.04.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.04.01	Success Cmple using SCF Ver of PGS Tlkt	Merging TS003.007 into B03.04.01
B03.05.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.05.01	Success Cmple using DAAC Ver of PGS Tlkt	Merging TS003.007 into B03.05.01
B03.06.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.06.01	Successful Scheduling of Algorithm	Merging TS003.001, TS003.002, and TS003.003 into B03.06.01

Test Case ID	Test Case Name	Rationale
B03.07.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.08.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.09.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.09.01	Successful Transfer	Merging TC009.002 into B03.09.01
B03.10.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.11.00		Sequences are no longer used in Ir1 test cases. All requirement verification traces are linked to test cases.
B03.12.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.12.01	Geolocation/Geocoordinatio n Conver Tst	Already covered in TS001.002 and TS001.003
B03.12.02	Time/Date Conversion Tests	Already covered in TS001.002 and TS001.003
B03.13.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.14.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B03.14.01	Operational Availability	Moved to Release A
B03.14.02	I/O to Intermediate Storage	Moved to Release A
B03.14.03	Mult Passes over Input Product	Moved to Release A
B04.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B04.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B04.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B04.02.01	GSFC Hardware Confirmation	Duplicate test case of T04-01.01.01
B04.02.02	MSFC Hardware Confirmation	Duplicate test case of T04-01.01.02
B04.02.03	LaRC Hardware Confirmation	Duplicate test case of T04-01.01.03
B04.02.04	EDF Hardware Confirmation	Duplicate test case of T04-01.01.04
B04.02.05	Hardware Power Loss	Duplicate test case of T04-01.01.05
B04.02.06	Hardware Monitoring Process Terminated	Duplicate test case of T04-01.01.06
B04.02.07	Network Disconnect from HW	Duplicate test case of T04-01.01.07
B04.02.08	Gateway/Router Power Loss	Duplicate test case of T04-01.01.08
B04.02.09	Gateway/Router Monitoring Process Termin	Duplicate test case of T04-01.01.09
B04.02.10	Network Disconnect from Gateway/Router	Duplicate test case of T04-01.01.10
B04.02.11	Software Application Termination	Duplicate test case of T04-01.01.11

Test Case ID	Test Case Name	Rationale
B04.02.12	SW Appl Monitoring ProcessTermination	Duplicate test case of T04-01.01.12
B04.02.13	GSFC Software Process Monitoring	Duplicate test case of T04-01.01.13
B04.02.14	MSFC Software Process Monitoring	Duplicate test case of T04-01.01.14
B04.02.15	LaRC Software Process Monitoring	Duplicate test case of T04-01.01.15
B04.02.16	EDF Software Process Monitoring	Duplicate test case of T04-01.01.16
B04.02.17	Computer Power Loss	Duplicate test case of T04-01.01.17
B04.02.18	Computer Monitoring Process Terminated	Duplicate test case of T04-01.01.18
B04.02.19	Network Disconnect from Computer	Duplicate test case of T04-01.01.19
B04.02.20	Operating Sys Monitoring Process Termin	Duplicate test case of T04-01.01.20
B04.02.21	Hard Disk Capacity Fault	Duplicate test case of T04-01.01.21
B04.02.22	Memory Threshold Fault	Duplicate test case of T04-01.01.22
B04.02.23	CPU Threshold Fault	Duplicate test case of T04-01.01.23
B04.02.24	Multi-Process Termination Fault	Duplicate test case of T04-01.01.24
B04.03.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
B04.03.01	Generation of Network Statistics	Merging test case with T04-01.03.01 and TC014.001
B04.03.02	Collection of Network Statistics	Merging test case with T04-01.03.02 and TC014.001
B04.03.03	Storing Network Statistics	Merging test case with T04-01.03.03 and TC014.001
B04.03.04	Display of Network Statistics	Merging test case with T04-01.03.04 and TC014.001
T01-01.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-01.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-01.01.01	Logon-Valid Account Name & Password	Already covered in BC008.001
T01-01.01.02	Logon-Invalid Acct Name, Valid Password	Already covered in BC008.001
T01-01.01.03	Logon-Valid Name, Invalid Password	Already covered in BC008.001
T01-01.01.04	Logons-All Valid	Already covered in BC008.001
T01-01.01.05	Logons-All Invalid	Already covered in BC008.001
T01-01.01.06	Logons-Valid and Invalid	Already covered in BC008.001
T01-01.01.07	Valid Logoff	Already covered in BC008.001
T01-01.01.08	Invalid Logoff	Already covered in BC008.001
T01-01.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-01.02.01	Account2 Logged on System	Already covered in TC010.001
T01-01.02.02	Account2 Not Logged on System	Already covered in TC010.001

Test Case ID	Test Case Name	Rationale
T01-01.02.03	Disconnect Account2 from Host	Already covered in TC010.001
T01-01.03.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-01.03.01	Account2 Logged on Host2	Already covered in B01.09.01, B01.09.02, and B01.09.03
T01-01.03.02	Account2 Not Logged on Host2	Already covered in B01.09.01, B01.09.02, and B01.09.03
T01-01.03.03	Disconnect Account2 from Host2	Already covered in B01.09.01, B01.09.02, and B01.09.03
T01-01.04.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-01.04.01	FTP Data File fr Host2 to Host1-Complete	Already covered in TC009.001
T01-01.04.02	FTP Data File fr Host1 to Host2-Complete	Already covered in TC009.001
T01-01.04.03	FTP Data File fr Host2 to Host1-Partial	Already covered in TC009.001
T01-01.04.04	FTP Data File fr Host1 to Host2-Partial	Already covered in TC009.001
T01-01.05.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-01.05.01	RCP Data File fr Host2 to Host1-Complete	Merging test case with TC009.004. This test will support the RCP Data File Transfer.
T01-01.05.02	RCP Data File fr Host1 to Host2-Complete	Merging test case with TC009.004. This test will support the RCP Data File Transfer.
T01-01.05.03	RCP Data File fr Host2 to Host1-Partial	Merging test case with TC009.004. This test will support the RCP Data File Transfer.
T01-01.05.04	RCP Data File fr Host1 to Host2-Partial	Merging test case with TC009.004. This test will support the RCP Data File Transfer.
T01-01.06.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-01.06.01	Transfer for File Using RCP Pipes	Already covered in TC009.004
T01-01.07.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-01.07.01	Transfer File tru Distributed File Serv.	Already covered in BC008.001
T01-02.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-02.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-02.01.01	Remote Logon to GSFC from EDF	Already covered in BC008.001
T01-02.01.02	Remote Logon to MSFC from EDF	Already covered in BC008.001
T01-02.01.03	Remote Logon to LaRC from EDF	Already covered in BC008.001
T01-02.01.04	Verification of History Log File	Already covered in TC013.003
T01-02.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-02.02.05	Verification of History Log File	Already covered in TC013.003

Test Case ID	Test Case Name	Rationale
T01-02.03.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-02.03.01	GSFC to EDF V0 Access	Already covered in B01.09.01
T01-02.03.02	GSFC to LaRC	Already covered in B01.09.02
T01-02.03.03	GSFC to MSFC	Already covered in B01.09.03
T01-02.03.05	Verification of History Log File	Already covered in TC013.003
T01-02.04.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-02.04.01	Transmit File fr EDF to GSFC (ftp)	Already covered in TC009.001. This test will support the Remote File Transfer.
T01-02.04.02	Transmit File fr EDF to LaRC (ftp)	Already covered in TC009.001. This test will support the Remote File Transfer.
T01-02.04.03	Transmit File fr EDF to MSFC (ftp)	Already covered in TC009.001. This test will support the Remote File Transfer.
T01-02.04.04	Transmit File fr EDF to EDC (ftp)	Already covered in TC009.001. This test will support the Remote File Transfer.
T01-02.04.05	Transmit File fr EDF to GSFC (rcp)	Already covered in TC009.004. This test will support the RCP Data File Transfer.
T01-02.04.06	Transmit File fr EDF to LaRC (rcp)	Already covered in TC009.004. This test will support the RCP Data File Transfer.
T01-02.04.07	Transmit File fr EDF to MSFC (rcp)	Already covered in TC009.004. This test will support the RCP Data File Transfer.
T01-02.04.08	Transmit File fr EDF to EDC (rcp)	Already covered in TC009.004. This test will support the RCP Data File Transfer.
T01-02.04.09	Transmit File tru Distributed File Serv	Already covered in BC008.001
T01-02.04.10	Verification of History Log File	Already covered in TC013.003
T01-02.05.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T01-02.05.06	Verification of History Log File	Already covered in TC013.003
T02-01.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T02-01.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T02-01.01.01	TSDIS Data Product Delivery Sche Receipt	Data Product Delivery Schedule Receipt is not a requirement in Ir1
T02-01.01.02	GSFC DAAC VIRS Data Product Receipt	Merging test case with TS005.002 and TS005.004
T02-01.01.03	MSFC DAAC Data Product Receipt	Merging test case with TS005.002 and TS005.004
T02-01.01.04	ECS Trans Corre and Ancillary Data TSDIS	Archive and retrieval are not requirements in Ir1
T02-01.01.05	Data Reprocess Req Trans to TSDIS	Data Processing Requests is not a requirement in Ir1
T02-01.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T02-01.02.01	ECS Testability	Not a specific requirement in Ir1
T02-01.02.02	ECS Portability	Not a specific requirement in Ir1

Test Case ID	Test Case Name	Rationale
T02-02.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T02-02.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T02-02.01.01	TRMM LIS fr SDPF to MSFC DAAC	Merging test case with TS005.001 and TS005.003
T02-02.01.02	TRMM LIS Corrpt Data fr SDPF to MSFC DAAC	Merging test case with BS002.003
T02-02.01.03	TRMM CERES Data fr SDPF to LaRC DAAC	Merging test case with TS005.001 and TS005.003
T02-02.01.04	TRMM CERES Corrpt Data fr SDPF-LaRC DAAC	Merging test case with BS002.003
T02-02.01.05	TRMM SDPF Schedules fr SDPF to EDF	No requirement for schedule transfer from SDPF to EDF in Ir1
T02-02.01.06	TRMM SDPF Corrpt Schedule fr SDPF to EDF	No requirement for schedule transfer from SDPF to EDF in Ir1
T02-02.01.07	TRMM SDPF Pred-Orbit Data SDPF-MSFC DAAC	Merging test case with TS005.001 and TS005.003
T02-02.01.08	TRMM SDPF CorrpPred-Orbit Data SDPF-MSFC	Merging test case with BS002.003
T02-02.01.09	TRMM SDPF Pred-Orbit Data SDPF-LaRC DAAC	Merging test case with TS005.001 and TS005.003
T02-02.01.10	TRMM SDPF CorrpPred-Orbit Data SDPF-LaRC	Merging test case with BS002.003
T02-02.01.11	TRMM SDPF Def-Orbit Data SDPF-MSFC DAAC	Merging test case with TS005.001 and TS005.003
T02-02.01.12	TRMM SDPF CorrpDef-Orbit Data SDPF-MSFC	Merging test case with BS002.003
T02-02.01.13	TRMM SDPF Def-Orbit Data SDPF-LaRC DAAC	Merging test case with TS005.001 and TS005.003
T02-02.01.14	TRMM SDPF CorrpDef-Orbit Data SDPF-LaRC	Merging test case with BS002.003
T03-01.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T03-01.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T03-01.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T03-01.02.01	Build Exec Code for ECS Defined Platform	Merging T03-01.03.01 into test case
T03-01.03.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T03-01.03.01	Install/Ver Exec for ECS Def Platfo Type	Merging test case with T03-01.02.01
T03-01.04.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T03-01.04.02	Build/Install Prev Ver of an Exec Code	Merging T03-01.04.03 into test case
T03-01.04.03	Build/Install New/Updat Ver of Exec Code	Merging test case with T03-01.04.02
T03-01.05.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.

Test Case ID	Test Case Name	Rationale
T03-01.05.01	Process (Check-in) Algorithm to CM	Merging TC015.001 into T03-01.05.01
T03-01.05.04	Process (check-in) Modify Algorth to CM	Merging TC015.002 into T03-01.05.04
T03-01.06.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T03-01.07.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T03-01.07.03	POSIX Compliance Test	Merging test case with B03.03.01
T03-01.07.04	POSIX Non-Compliance Test	Merging test case with B03.03.02
T03-01.08.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T03-01.09.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T04-01.00.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T04-01.01.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T04-01.01.01	GSFC HW Confirmation	Merging test case with T04-01.01.02, T04-01.01.03, T04-01.01.04, and TC014.001
T04-01.01.02	MSFC HW Confirmation	Merging test case with T04-01.01.01, T04-01.01.03, T04-01.01.04, and TC014.001
T04-01.01.03	LaRC HW Confirmation	Merging test case with T04-01.01.01, T04-01.01.02, T04-01.01.04, and TC014.001
T04-01.01.04	EDF HW Confirmation	Merging test case with T04-01.01.01, T04-01.01.02, T04-01.01.03, and TC014.001
T04-01.01.05	HW Power Loss	Merging test case with TC014.002
T04-01.01.07	Network Disconnect fr HW	Merging test case with BC016.001 and TC014.002
T04-01.01.08	Gateway/Router Power Loss	Merging test case with TC014.002
T04-01.01.10	Network Disconnect fr Gateway/Router	Merging test case with TC014.002
T04-01.01.11	SW Application Termination	Merging test case with BC016.001 and TC014.002
T04-01.01.13	GSFC SW Process Monitoring	Merging test case with T04-01.01.14, T04-01.01.15, T04-01.01.16, and TC014.001
T04-01.01.14	MSFC SW Process Monitoring	Merging test case with T04-01.01.13, T04-01.01.15, T04-01.01.16, and TC014.001
T04-01.01.15	LaRC SW Process Monitoring	Merging test case with T04-01.01.13, T04-01.01.14, T04-01.01.16, and TC014.001
T04-01.01.16	EDF SW Process Monitoring	Merging test case with T04-01.01.13, T04-01.01.14, T04-01.01.15, and TC014.001
T04-01.01.17	Computer Power Loss	Merging test case with TC014.002
T04-01.01.19	Network Disconnect fr Computer	Merging test case with TC014.002
T04-01.01.21	Hard Disk Capacity Fault	Merging test case with TC013.005
T04-01.01.22	Memory Threshold Fault	Merging test case with TC013.005
T04-01.01.23	CPU Threshold Fault	Merging test case with TC013.005
T04-01.01.24	Multi-Process Termination Fault	Merging test case with TC013.005

Test Case ID	Test Case Name	Rationale
T04-01.02.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T04-01.03.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T04-01.03.01	Generation of Network Statistics	Merging test case with B04.03.01 and TC014.001
T04-01.03.02	Collection of Network Statistics	Merging test case with B04.03.02 and TC014.001
T04-01.03.03	Storing Network Statistics	Merging test case with B04.03.03 and TC014.001
T04-01.03.04	Display of Network Statistics	Merging test case with B04.03.04 and TC014.001
T04-01.04.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.
T04-01.05.00		Sequences are no longer used in Ir1 test plans. All requirement verification traces are linked to test cases.

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Appendix E. Test Case Formats, Notations and Naming Conventions

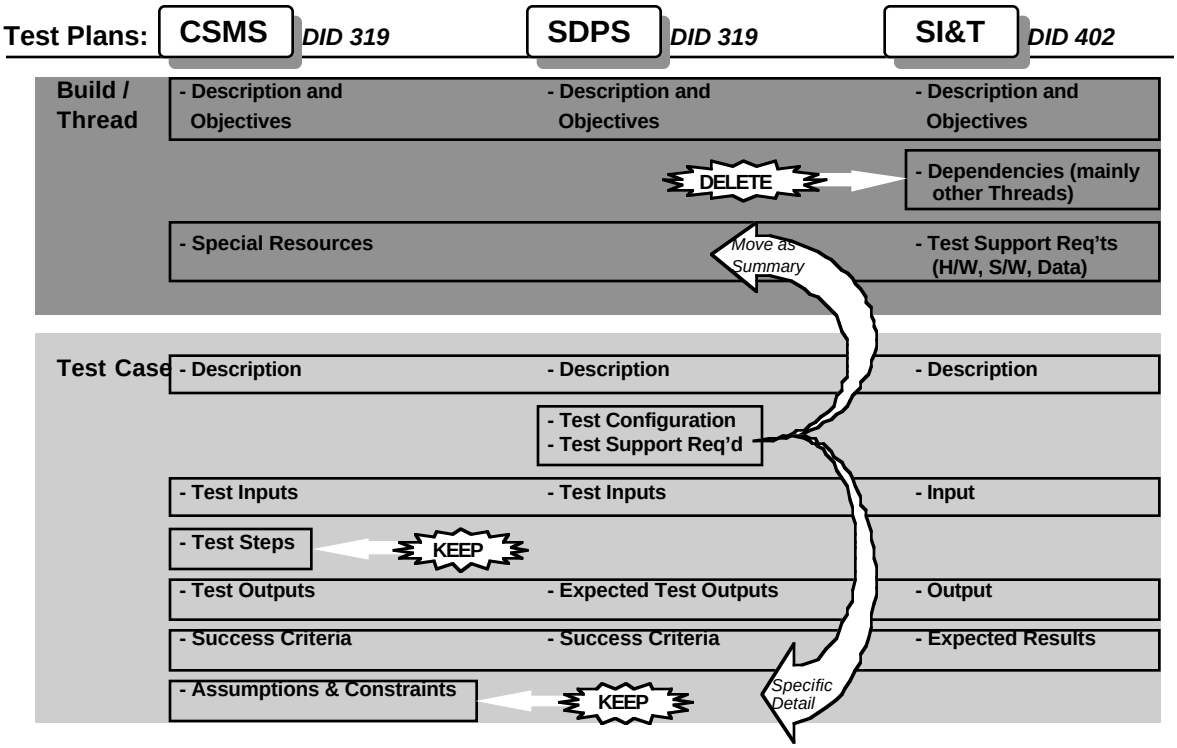

Figure E-1. Test Plan Consolidation Approach

Table E-1. Test Case ID Notations

	"CSMS" Test IDs	"SDPS" Test IDs	"SI&T" Test IDs
Build Test Case	BCxxx.yyy	BSxxx.yyy	Bxx.yy.zz
Thread Test Case	TCxxx.yyy	TSxxx.yyy	Txx-yy.zz.nn

Notes:

(1) x, y, z, n are numerical values between 0 and 9.

(2) PDR time frame build test cases may have moved to the thread level in this document and vice versa. This is a direct result of the consolidation process and the development of a new release Build/Thread plan (as opposed to using the three unique segment B/T plans established at PDR). In any case the original test case ID is maintained thus being identical to the PDR test plans as well as the RTM baseline.

Appendix F. Test Log and Procedure Templates

TEST LOG

Thread / Build Name:		
Test Case Name:		
Test Case ID:		
Test Location: EDF DAAC:		
S/W Config./ Version:		
H/W Config./ Host Names:		
Test Data:		
Test Tools/ Scripts:		
Test Date:	Test Time:	Tester(s):
Witness(es):		
Comments:		
NCRs Written:		
NCRs Verified:		
NCRs Un-Verified:		
Pass	Fail	Partial Pass/Fail
1st Run	Formal Run	Retest Release

TEST PROCEDURES (Test Case ID #)

Step No.	Step Description / Operator Action	Expected Results	Observations / Comments

Step No.: Sequential numbering.

Step Description / Operator Action: Provide sufficient detail for test personnel to conduct test. Attempt to combine several low level steps into a single description (e.g., login and start the PDPS scheduler). If any further detail is required, the Comments field will be used.

Expected Results: Provide additional detail on a per-step basis as appropriate.

Observations / Comments: Provide further detail or configuration issues on a per-step basis as appropriate. May include one or more of the following:

- Additional Comments
- Script or Driver names (shell or Xrunner)
- Paths, hosts
- Common routines (e.g., startup)
- Observed results
- Evaluation Criteria
- NCR #'s (if assigned)
- Action(s) to be taken at step failure (e.g., cease further testing)

Abbreviations and Acronyms

ACL	access control list
AI&T	Algorithm Integration and Test
API	Application Programmer Interface
BBS	bulletin board server
CCR	configuration change request
CDR	Critical Design Review
CDRL	contract data requirements list
CDS	Cell Directory Service
CDSCP	cell directory service command program
CERES	Clouds and Earth's Radiant Energy System
CI	configuration item
CM	configuration management
CMAS	Configuration Management Application Service
COTS	commercial off-the-shelf
CSC	computer software component
CSCI	computer software configuration item
CSMS	Communications and Systems Management Segment
CSR	Consent to Ship Review
CSS	Communications SubSystem
CSU	computer software unit
DAAC	Distributed Active Archive Center
DBMS	Data Base Management System
DCCI	Distributed Computing CI
DCE	Distributed Computing Environment
DCHCI	Distributed Computing Hardware CI
DCN	document change notice
DDTS	Distributed Defect Tracking System
DFS	distributed file service

DID	data item description
DTS	distributed time service
DV1	document version 1
ECS	EOSDIS Core System
EDC	EROS Data Center (DAAC)
EDF	ECS Development Facility
EDHS	ECS Data Handling System
EMC	Enterprise Monitoring and Coordination
EOC	ECS Operations Center
EOS	Earth Observation System
EOSDIS	Earth Observation System Data Information System
EP	Evaluation Package
EROS	Earth Resources Observation System
ESN	EOSDIS Science Network
ETR	Element Test Review
FDF	flight dynamics facility
F&PRS	Functional and Performance Requirements Specifications
FOS	Flight Operations Segment
FTP	file transfer protocol
GDS	Global Directory Service
GSFC	Goddard Space Flight Center
HWCI	Hardware CI
I&T	Integration and Test
IATO	Independent Acceptance Test Organization
ICD	Interface Control Document
IDL	interactive data language
IDR	internal design review
INCI	Internetworking CI
INHCI	Internetworking Hardware CI
IP	Internet protocol
Ir1	Interim Release one

ISO	International Standards Organization
ISS	Internetworking SubSystem
IV&V	Independent Verification and Validation
JPL	Jet Propulsion Laboratory
LAN	Local Area Network
LaRC	Langley Research Center
LIS	Lightning Imaging Sensor
M&O	Maintenance and Operations
MACI	Management Agent Software CI
MCI	Management Software CI
MG1	Management one
MHCI	Management Hardware CI
MIB	Management Information Base
MLCI	Management Logistics Software CI
MOC	Mission Operations Center
MSFC	Marshall Space Flight Center
MSS	Management SubSystem
MUI	Management User Interface
NASCOM	NASA Communications
NCR	Nonconformance Reporting
NOAA	National Oceanic and Atmospheric Administrator
NOLAN	NASCOM Operational Local Area Network
NRCA	Noncomformance Reporting And Corrective Action
NSI	NASA Science Internet
OODCE	Object Oriented DCE
OSI	Open System Interconnect
OSPF	Open Shortest Path First (routing protocol)
OSI-RM	OSI - Reference Model
PDR	preliminary design review
PGS	Product Generation System
PMAS	Performance Management Application Service

RBR	Requirement by Release
RFC	Request for Comment
RFP	Request for Proposal
RIP	Router Information Protocol
RPC	remote procedure call
RRR	Release Readiness Review
RTM	requirements Traceability matrix
SCF	Science Computing Facility
SDPF	Science Data Processing Facility
SDPS	Science Data Processing Segment
SEI	Software Engineering Institute
TBD	to be determined
TCP	Transmission Control Protocol
TMI	TRMM Microwave Image
TRMM	Tropical Rainfall Measuring Mission (joint US-Japan)
TRR	test readiness review
TSDIS	TRMM Science Data and Information System
UTC	universal time code
V0	Version Zero
VOB	Version Object Base